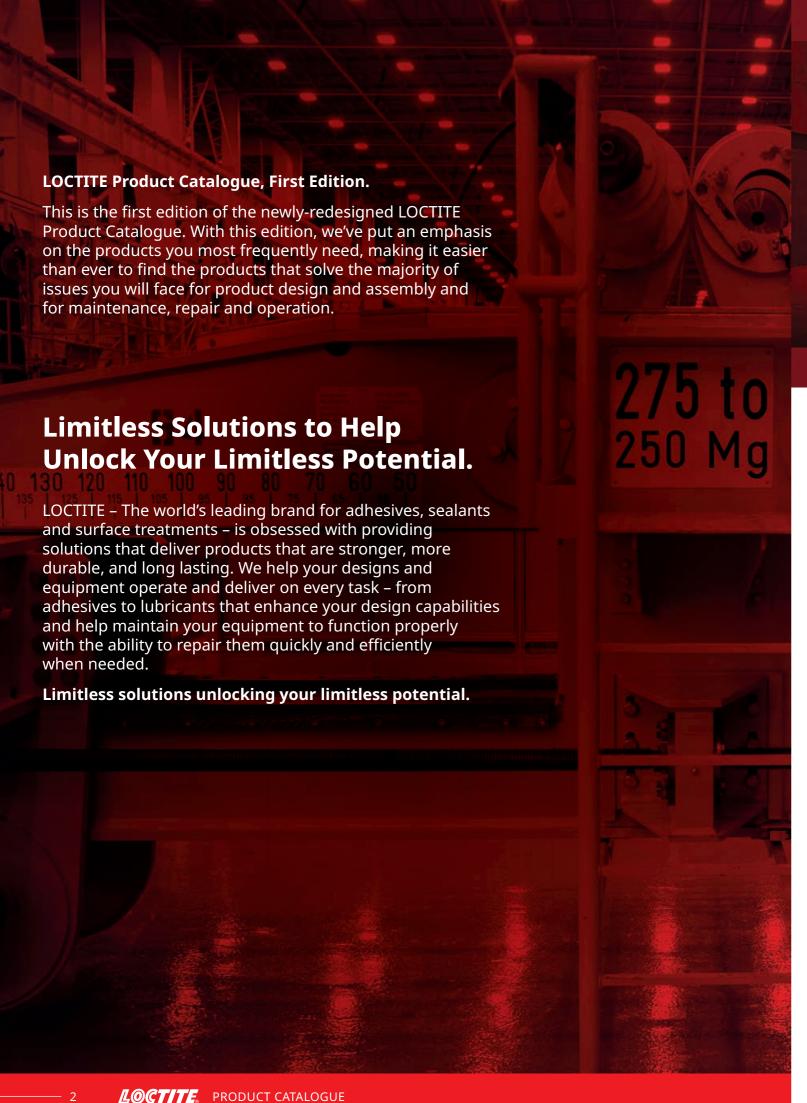
# LOCTTE®

**PRODUCT CATALOGUE** 



#### PARTNERSHIP OF THE WINNERS

The most innovative & all electric motorsport World Championship,

#### **ABB FORMULA E**

is a showcase for the world's most advanced e-mobility technologies, which are helping to drive progress towards a more sustainable future.





The future of LOCTITE stands for:

**Progress** Sustainability **Transformation Female Empowerment** Teamwork



#### **LOCTITE & TAG Heuer Porsche Formula E Team**

Reinforcing the legacy of performance, innovation & reliability.

In a common emotional journey into the digital transformation process for a carbon-free world through



#### **Threadlockers**

Prevent fastener loosening and seizure

16

#### **Thread Sealants**

Prevent leaks - air, hydraulic

24

#### Gasketing **Products**

Prevent flange leaks oil, transmission, coolant

34

#### Retaining Compounds

Prevent backlash – keyway wallowing, spun bearings, shaft misalignment, wear, corrosion

#### **Instant Adhesives**

Bond dissimilar parts quickly and easily

54

#### **Universal Bonders**

Bond a wide range of materials fast

**62** 

#### **Structural Adhesives**

Bond structural assemblies and repair damaged parts

74

#### Flexible Adhesives and Sealants

Bond and seal parts that experience movement

82

#### **Light Cure Adhesives**

On-demand curing

90

#### Cleaners

Clean and degrease parts and work surfaces

96

#### **Wear Prevention**

Fight rust, chemical corrosion and wear and improve performance.

104

#### Rebuilding

Rebuild worn or corroded

112

#### Lubricants

Prevent friction, heat or wear between metal surfaces

116

#### **Anti-Seize Products**

Prevent rust, corrosion, galling or seizing on metal parts in extreme environments

122

#### **Specialty** Maintenance

Solve nearly any issue with a wide range of solutions

128

Equipment

142 Index

# Optimise Assemblies, Reduce Unplanned Downtime,

#### With LOCTITE Services.

#### **HOW WE CAN HELP**

LOCTITE Services include line audits, plant surveys, inventory assessments, and in-person and online training to make your design, production and maintenance processes much more efficient.

01.

#### **DESIGN & ASSEMBLY**

- Design guides
- Line surveys
- In-plant seminars
- · Support through the developmental cycle

02.

#### **MAINTENANCE REPAIR & OVERHAUL**

- Repair guides
- Plant surveys
- Maintenance Reliability Workshops
- Inventory consolidation

services.loctite.com

# LOCTITE & PLORE



#### **Become an Adhesive Pro!**

LOCTITE XPLORE is your new e-learning platform designed for **Assembly, Maintenance and Vehicle Repair Pros** – to help you make informed decisions within your area of expertise. The content is based on the accumulated knowledge of **more than 65 years of practical experience** – and it's **100 % free** and certified.

Meet LOC and ROSON, who will drive you to the topic and start improving your skills – 15 minutes at a time. Quick gratification is as easy as that!



LOCTITE.

PRODUCT CATALOGUE



#### Tighten your operation. **Eliminate loosening.**

Threadlockers lock and seal your threaded assemblies, protecting against vibration, corrosion and galling. But depending on your need, you have to choose the right Threadlocker and consider strength, form and removability. Which one will you need? LOCTITE makes your choice easy.





#### **LOCTITE 243 Threadlocker**

#### **General Purpose, Medium Strength**

LOCTITE 243 works on all metals, including passive substrates such as stainless steel, zinced bolts and plated bolts. Proven to be tolerant of minor contamination due to e.g. motor oils, corrosion prevention oils, cutting fluids.

#### **Benefits:**

- P1 NSF Reg. No.: 123000
- · Fluorescent & thixotrop



#### Disassembly:

Removable with hand tools



#### Form:

Liquid



Temperature resistance:



#### How to choose a threadlocker.



#### **STRENGTH & DISASSEMBLY**

From heavy equipment and permanent assemblies to mounting bolts and adjustment screws, LOCTITE has your Threadlocker.

#### **LOW STRENGTH**

Primarily used on adjustment screws, calibration screws, meters and gauges. They have high disassembly frequency and are removable with hand tools.

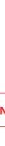
**FORM** 

#### **MEDIUM STRENGTH**

Great for machine tools and presses, pumps and compressors, mounting bolts and gearboxes. They have normal disassembly frequency and are removable with hand tools.

#### **HIGH STRENGTH**

Used for more permanent assemblies, heavy equipment, suspension bolts, motor and pump mounts, cap bolts and studs. These are rarely disassembled and require localised heat for effective removal.



Threadlockers come in a variety of different forms ranging from liquid, which flow smoothly into gaps and spaces, to semi-solid, a no-drip, no-mess formulation ideal for overhead applications. Knowing your application will help you select the correct Threadlocker.



TEMPERATURE RESISTANCE

LOCTITE Threadlockers are formulated to have a good thermal performance for continuous service from application to removal.





#### **LOCTITE 270 Threadlocker**

#### **General Purpose, High Strength**

LOCTITE 270 works on all metals, including passive substrates such as stainless steel, zinced bolts and plated bolts. Proven to be tolerant of minor contamination due to e.g. motor oils, corrosion prevention oils, cutting fluids.

#### **Benefits:**

• P1 NSF Reg. No.: 123006



Disassembly: Removable with hand tools

Form: Liquid



**Temperature resistance:** 



LOCTITE. **PRODUCT CATALOGUE THREADLOCKERS** 

#### Find the right product for your application



#### DISASSEMBLY

#### **Medium Strength**

**LOCTITE 243 LOCTITE 248 LOCTITE 290** 

#### Low Strength

**LOCTITE 222** 

#### **High Strength**

**LOCTITE 270 LOCTITE 277** 



\* Optimised Health & Safety products focusing on people safety. Enhancing safety in production, application and end-use.



\*\* Has been reformulated to offer improved cure on zinc-flake coatings, while maintaining a very reliable cure on active and passive metal surfaces. This upgrade has achieved this objective without compromising any key properties such as active substrate bond strength, inactive surface cure, chemical resistance or shelf life.

LOCTITE 2400 retains the WRAS, DVGW and German Hygiene Institute certifications and fully meets the LOCTITE Materials Specification of the

LOCTITE 2700 retains the WRAS and German Hygiene Institute certifications and gains the DVGW approval. This upgraded product fully meets the LOCTITE Materials Specification of the former version.

#### **Medium Strength**



**LOCTITE 243** 



**LOCTITE 248** 



Temperature resistance:

Form: Liquid

Viscosity: 2.150 mPa·s

Full cure: 24 h

Breakaway torque: 26 Nm



Strength & disassembly:



Form: Stick



Temperature resistance:

Viscosity: Semi-solid Breakaway torque: 25 Nm Full cure: 24 h

#### **High Strength**



**LOCTITE 270** 



**LOCTITE 277** 



**LOCTITE 290** 

Strength & disassembly:



Form: Liquid

Viscosity: 500 mPa·s

Full cure: 24 h

Breakaway torque: 33 Nm

Temperature resistance:

Strength & disassembly: Removable with standard hand tools, where hand tools do not work apply



Viscosity: 7.000 mPa·s

Full cure: 24 h

Breakaway torque: 32 Nm

Removable with standard hand tools, where hand tools do not work apply

Strength & disassembly:

Temperature resistance:



Form: Liquid



Temperature resistance:



Viscosity: 40 mPa·s

Breakaway torque: 10 Nm Fixture speed: 20 min. Full cure: 24 h

#### **Low Strength**





Viscosity: 1.200 mPa·s





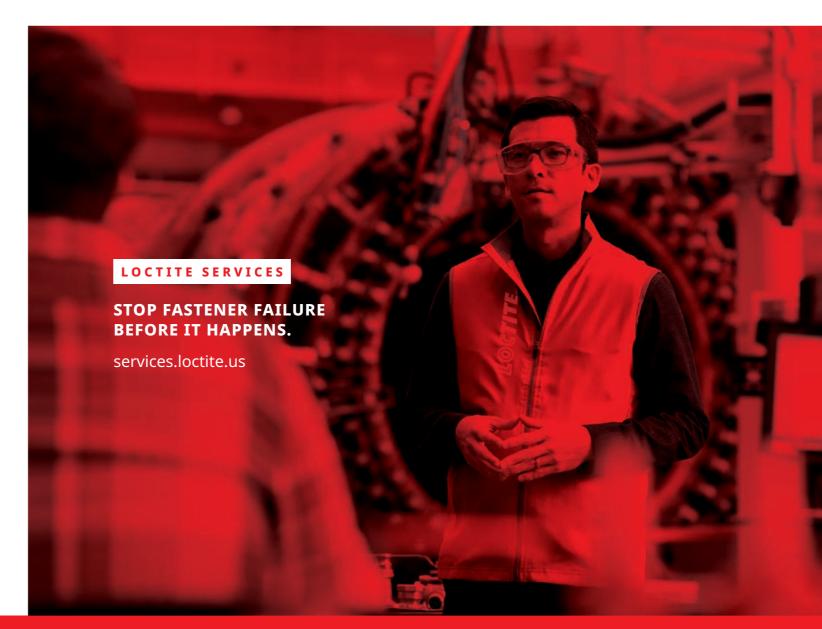






Temperature resistance:

Breakaway torque: 6 Nm



LOCTITE

# **Surface Preparation**



LOCTITE SF 7063

A solvent-based, general purpose parts cleaner formulated for metals. The product is able to remove most oils, greases, lubrication fluids, metal cuttings and dries residue-free.



**LOCTITE SF 7649** 

Designed to promote the curing speed of LOCTITE anaerobic adhesives and sealants without any significant loss of joint strength. Especially recommended for applications with passive metals or inert surfaces and with large bond gaps.

#### **Equipment**



LOCTITE 97009
Semi Automatic Dispensing System HP (High Pressure)
IDH 215845

Enables dispensing of the adhesive directly from the larger bottles. The controller provides digital timing control for any LOCTITE automatic dispense valve or automatic hand-held applicator. It is equipped with a precision pressure regulator:

>0,1 - 4,0 bar for viscosities >1.500 mPa·s.



NEW LOCTITE EQ PRO PUMP Handheld Dispenser IDH 2564842

Our all-new easy to use, light-weight, durable applicator that allows for the precise application of 50 ml and 250 ml threadlockers, retaining compounds and thread sealants.



LOCTITE EQ RC18
Semi Automatic Dispensing System LP (Low Pressure)
IDH 2260508

Enables dispensing of the adhesive directly from the larger bottles. The controller provides digital timing control for any LOCTITE automatic dispense valve or automatic hand-held applicator. It is equipped with a precision pressure regulator:

>0,1 – 0,7 bar for the RC18 (Low Pressure) for viscosities <1.500 mPa·s.



It is a pneumatically operated handheld dispense valve, designed to be used in conjunction with pressure-time dispense systems.

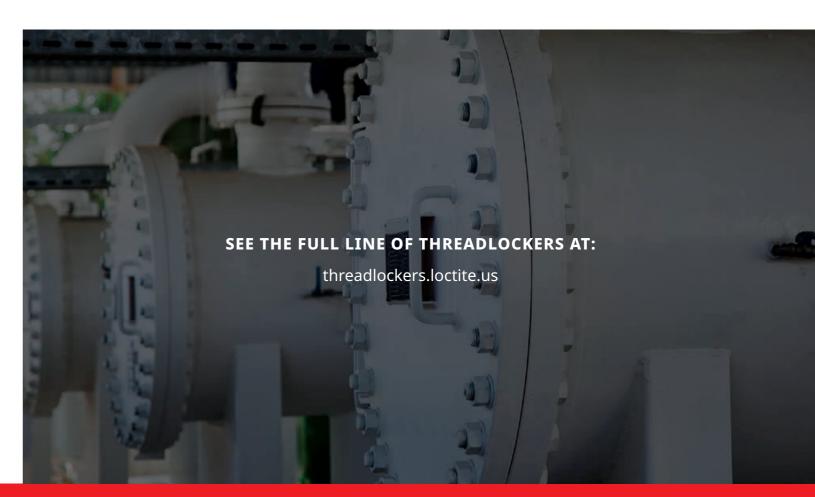
Please refer to page 128 for additional equipment/information.

NEW LOCTITE EQ PRO PUMP HANDHELD DISPENSER FOR EASY APPLICATION.

For a full lineup of equipment to support your needs visit **equipment.loctite.com** 









# **Keeping a Wind Generator Operating Safely**



"Thanks to our LOCTITE Engineering Solutions Expert, we don't have to worry about corrosion or catastrophic fastener failure."

A wind farm erecting its first wind generator wanted to insure that the bolts attaching the blade to the hub maintained the designed torque and were protected from the corrosion that can occur with exposure to the elements. The ideal solution was **LOCTITE 243** Threadlocker, which helps prevent catastrophic failure by resisting vibrational loosening, preventing thread corrosion and maintaining fastener torque in the wing to hub assembly.

A LOCTITE Engineering Solutions Expert helped the team remove the protective shipping covers from the exposed bolt threads and clean the steel fasteners. They then inserted the blade into the main hub applied **LOCTITE 243** Threadlocker to the fasteners, torqued the blade to hub assembly to specification and mounted the hub to the generator drive system. Now, with corrosion free fasteners that maintain clamp load, and that are easily disassembled at a predictable break loose torque, the wind farm is assured of safe, maintenance-free wind turbine operation until scheduled downtime.

#### **BENEFITS**

#### **LOCTITE 243 Threadlocker:**

- Fills the gaps between threads to prevent movement between the nut and bolt
- Eliminates vibrational loosening, maintaining the original fastener torque and insuring safe operation
- Prevents corrosion that makes disassembly difficult

14 **LOCTITE** PRODUCT CATALOGUE THREADLOCKERS



#### Seal out leaks.

#### Seal in productivity.

Thread sealants fill the space between threaded parts and provide an instant, low pressure seal that prevents fluid and gas leaks which can cause costly downtime. LOCTITE has a variety of thread sealants, and the one you need will depend on your system material and thread type.





#### **LOCTITE 577**

#### **General Purpose**

LOCTITE 577 is a general purpose thread sealant which provides an instant seal. Tolerates minor surface contaminants, rated up to 150 °C operating temperature.

#### **Benefits:**

- P1 NSF Reg. No.: 123001
- DVGW (EN 751-1): NG-5146CQ0312
- · WRAS (BS 6920): 2003511



#### Substrate:

Metal



Thread type:

Straight



Anaerobic liquid

#### How to choose a thread sealant.



#### **SUBSTRATE**

There's a LOCTITE thread sealant for any type of piping system.

#### **METAL**

For metal-to-metal pipe connections and fittings, use LOCTITE anaerobic thread sealants. They cure in the absence of air and by contact with metals.

#### PLASTIC

Ideal for use on threaded plastic or plastic/metal substrate combinations.



#### THREAD TYPE

There are two types of threads to consider. The National Pipe Taper (NPT) seal, most widely used in the United States and Canada, which requires a lower strength thread sealant for disassembly. The British Standard Pipe Taper (BSPT), more common in other countries, requires a higher strength thread sealant in order to seal the connection properly.



#### **FORM**

Thread sealants are available in a variety of forms, from liquid to paste to solid. Each is suited to different applications. Liquids are ideal for flowing into gaps in threaded connections. Pastes and solids are best for overhead applications where it's necessary to prevent drips, or an instant seal is needed.





#### **LOCTITE 542**

#### **Hydraulic and Pneumatic**

LOCTITE 542 is a pipe thread sealant designed for locking and sealing of metal pipes and fittings. It is specially formulated to offer high lubricity for easy assembly and removal. Recommended for fine threaded fittings as used in hydraulic and pneumatic installations and small fittings in general.

#### **Benefits:**

- DVGW (EN 751-1): NG-5146AR0855
- WRAS (BS 6920) for potable water: 1512515



#### Substrate:



Thread type:



Anaerobic liquid

LOCTITE.

**PRODUCT CATALOGUE** 

#### Find the right product for your application



#### **SUBSTRATE**

Metal

**LOCTITE 577 LOCTITE 542 LOCTITE 55** 

Plastic **LOCTITE SI 5331** 

#### **SEE OUR FULL LINE OF THREAD SEALANTS:**

thread-sealants.loctite.us



\* Optimised Health & Safety products focusing on people safety. Enhancing safety in production, application and end-use

#### Metal



Substrate: Metal

Thread type: Straight

Form: Liquid

Temperature resistance: 150 °C

Viscosity: 25.000 mPa·s



**LOCTITE 542** Hydraulic and Pneumatic



Substrate: Metal



Form: Liquid

Viscosity: 600 mPa·s Temperature resistance: 150  $^{\circ}\text{C}$ 







Substrate: Metal, Plastic



Thread type: Straight



Form: Cord

Viscosity: Cord Temperature resistance: 150 °C

#### **Plastic**



**LOCTITE SI 5331** 



Substrate: Plastic, Metal



Thread type: Straight



Form: Paste

Viscosity: 50.000 mPa·s Temperature resistance: 150 °C

#### **Surface Preparation**



**LOCTITE SF 7070** 

Solvent-based (non-CFC) parts cleaner formulated for plastics and metals. Suitable for use as a spray, wipe or in immersion cleaning at room temperature, the product is able to remove most oils, greases, lubrication fluids, metal cuttings and fines from plastic parts without the risk of stress cracks.

#### **Equipment**



**LOCTITE EQ RC18** (Low Pressure) IDH 2260508

Enables dispensing of the adhesive directly from the larger bottles. The controller provides digital timing control for any LOCTITE automatic dispense valve or automatic hand-held applicator. It is equipped with a precision pressure regulator: >0,1 – 0,7 bar for the RC18 (Low Pressure) for viscosities <1.500 mPa•s.



Our all-new easy to use, light-weight, durable applicator that allows for precision application of threadlockers, retaining compounds and thread sealants in 50 and 250 ml bottles



**LOCTITE SF 7649** 

Designed to promote the curing speed of LOCTITE anaerobic adhesives and sealants without any significant loss of joint strength. Especially recommended for applications with passive metals or inert surfaces and with large bond gaps.

100 ml

For plastic and metal, silicone-based



**LOCTITE 97009** Semi Automatic Dispensing System HP IDH 215845

Enables dispensing of the adhesive directly from the larger bottles. The controller provides digital timing control for any LOCTITE automatic dispense valve or automatic hand-held applicator. It is equipped with a precision pressure regulator: >0,1 – 4,0 bar for viscosities >1.500 mPa·s.



It is a pneumatically operated handheld dispense valve, designed to be used in conjunction with pressure-time dispense systems.

Please refer to page 128 for additional equipment/information.

#### THREAD SEALANTS Temperature Breakaway Torque, Steel M10 Product Pack Size Features Colour (mPa•s) (Yes/No) 20 RPM (°C) (Nm) METAL LOCTITE 10 ml, 50 ml, 250 ml 600 No 15 Pneumatic/hydraulic sealant Brown -55 to +150 LOCTITE 50 ml. 250 ml Medium strength, general purpose Yellow 25.000 Yes -55 to +150 33 METAL OR PLASTIC LOCTITE 24 x 160 m, Metal and plastic compatible, White Cord -55 to +150 N/A 48 x 160 m allows post-adjustment LOCTITE

50,000

No

-55 to +150



LOCTITE.

1,5



# **Putting a Stop** to Leaking Fittings

"LOCTITE helped us reduce downtime and labour costs with a better, longer-lasting solution, even on stainless steel."

A vapor abrasive blast equipment manufacturer was dissatisfied with the rework required on leaking threaded pipe fittings prior to product shipment. A stainless steel pipe thread sealant is needed to improve sealing reliability on coarse threads. Slow curing competitive sealant had difficulty filling coarse thread gaps leading to fitting leaks. The assembly technician response to thread leaks was to use more sealant increasing product costs.

No cleaning or use of an additional activator is required for the stainless steel threaded pipe and fittings prior to the application of LOCTITE 577. Parts are used as received from the manufacturer.

Adjustments can be made to ensure proper piping alignment beneath the equipment cover.

The Henkel solution reduces manufacturing costs by eliminating post production repairs to leaking fittings. Stocking distributor services insure on-time product delivery to meet production schedules.

#### **BENEFITS**

#### **LOCTITE 577 Thread Sealant:**

- Very good inactive cure cures on passive metals, like stainless steel without use of additional activators
- Excellent oil tolerance cures on pipes with light oily contamination or not properly cleaned parts
- Easily seals coarse stainless steel threads to eliminate post production
- Henkel on-site application training reduces product over use to lower material usage costs

PRODUCT CATALOGUE **THREAD SEALANTS** 



With compression gaskets: Not all surface imperfections are filled. They distort, relax under compression and displace from the joint. With liquid gaskets:
When assembled, all surface imperfections are filled, adding structural stiffness and eliminating micromovement and slipping.
They do not shrink, crack or suffer from relaxation.

# Liquid gaskets hold up better. For longer lasting seals.

To provide a leak-free seal over a long period of time, gaskets must fill voids and be resistant to liquids and/or gases, while withstanding the operating temperatures and pressures to which they are subjected. LOCTITE offers a range of gasketing products designed for any flange type, gap size or material.





#### **LOCTITE SI 5910**

#### **High Adhesion**

LOCTITE SI 5910 is a low strength, silicone-based gasketing product designed for use on flexible flanges with machined or cast surfaces. It has good resistance against oil and joint movement. Typical applications include stamped sheet metal covers. Typically thinner, stamped metal flanges can have larger gaps that need to be filled. They are also subject to more flex in service. For these types of assemblies, silicone liquid gasketing products provide the best seal.

#### **Benefits:**

- 1K silicone, requires no mixing
- Excellent resistance to automotive engine oils
- The thixotropic nature reduces the migration of liquid product after application to the substrate



#### How to choose a gasketing product.



#### **FLANGE TYPE**

#### **RIGID MACHINED FLANGES**

Rigid, machined flange surfaces typically are designed for no gap, allowing for metal to metal contact. For these assemblies anaerobic liquid gaskets are the best choice because they provide the highest strength seal.

#### STAMPED OR FLEXIBLE FLANGES

Typically thinner, stamped metal flanges can have larger gaps that need to be filled. They are also subject to more flex in service. For these types of assemblies, silicone liquid gasketing products provide the best seal.



LOCTITE.

#### Find the right product for your application



#### FLANGE TYPE

#### **Rigid Machined Flange**

**LOCTITE 518 LOCTITE 510 LOCTITE 5188 LOCTITE 574 LOCTITE NS 5540 LOCTITE NS 5550** 

#### **Stamped Flange**

**LOCTITE SI 5699 LOCTITE SI 5900 LOCTITE SI 5910 LOCTITE SI 5970 LOCTITE SI 5980 LOCTITE SI 5300 LOCTITE SI 5367 LOCTITE SI 596** 



\* Optimised Health & Safety products focusing on people safety. Enhancing safety in production, application and end-use.

#### **Rigid Machined Flange**



Viscosity: 750.000 mPa·s thixotropic Temperature resistance: 150 °C



LOCTITE 510 **High Temperature** 

Viscosity: 90.000 mPa·s thixotropic Temperature resistance: 200 °C Cure Method: Anaerobic



LOCTITE 5188

Viscosity: 21.000 mPa·s Temperature resistance: 150 °C Cure Method: Anaerobic



LOCTITE General Purpose

Viscosity: 29.000 mPa·s
Temperature resistance: 150 °C Cure Method: Anaerobic



LOCTITE **NS 5540** Extreme Temperature Liquid

Viscosity: 48.000 mPa·s Temperature resistance: 704 °C Cure Method: Heat Cure



Colour: Grey

Viscosity: Paste

LOCTITE SI 5970

**Stamped Flange** 

LOCTITE

**SI 5699** 

Temperature resistance: 200 °C

Colour: Black Viscosity: Paste Temperature resistance: 200 °C Cure Method: Moisture



Colour: Black

Viscosity: Paste

Cure Method: Moisture

LOCTITE SI 5980 Large Gap

LOCTITE

**SI 5900** 

Temperature resistance: 200 °C

Colour: Black Viscosity: Paste Temperature resistance: 200 °C Cure Method: Moisture



Colour: Black

Viscosity: Paste

Colour: Red Viscosity: Paste Temperature resistance: 300 °C Cure Method: Moisture

LOCTITE

SI 5910

Temperature resistance: 200 °C



Viscosity: Paste Temperature resistance: 250 °C Cure Method: Moisture



Viscosity: Paste Temperature resistance: 315 °C Cure Method: Moisture



LOCTITE **NS 5550** Extreme Temperature Paste

Viscosity: 2.000.000 mPa·s Temperature resistance: 815 °C Cure Method: Heat Cure

LOCTITE

#### **Surface Preparation**



**LOCTITE SF 7070** 

Solvent-based (non-CFC) parts cleaner formulated for plastics and metals. Suitable for use as a spray, wipe or in immersion cleaning at room temperature, the product is able to remove most oils, greases, lubrication fluids, metal cuttings and fines from plastic parts without the risk of stress cracks.



**LOCTITE SF 790** Parts Cleaner, Gasket Remover

Grey to off-white methylene chloride liquid solvent in an aerosol spray, designed to remove baked-on chemical gaskets, gasket cements and conventional gasket materials from metal parts. It removes also silicone gaskets, verticinal gasket fraterials from frietal parts. It removes also sincorie gaskets, carbon deposites and many kinds of paints and varnishes without damaging of metal surface. Its aerosol spray form enables spray application on to intricate shapes with maximum penetration. Product will not run off even from vertical surfaces.



**LOCTITE SF 7649** 

Designed to promote the curing speed of LOCTITE anaerobic adhesives and sealants without any significant loss of joint strength. Especially recommended for applications with passive metals or inert surfaces and with large bond gaps.

#### **Equipment**



**LOCTITE 97002** 300 ml Pneumatic Cartridge Dispenser IDH 88632

It is a pneumatic dispenser for applying products from 300 ml cartridges. Pneumatic pressurisation minimises operator fatigue. Flow rate is controlled via the integrated pressure regulator. The operator controls the amount by holding down the trigger.



LOCTITE 300 ml Manual Cartridge Dispenser IDH 142240

Dispenser for adhesives and sealants in 290 ml, 300 ml and 310 ml plastic and aluminium

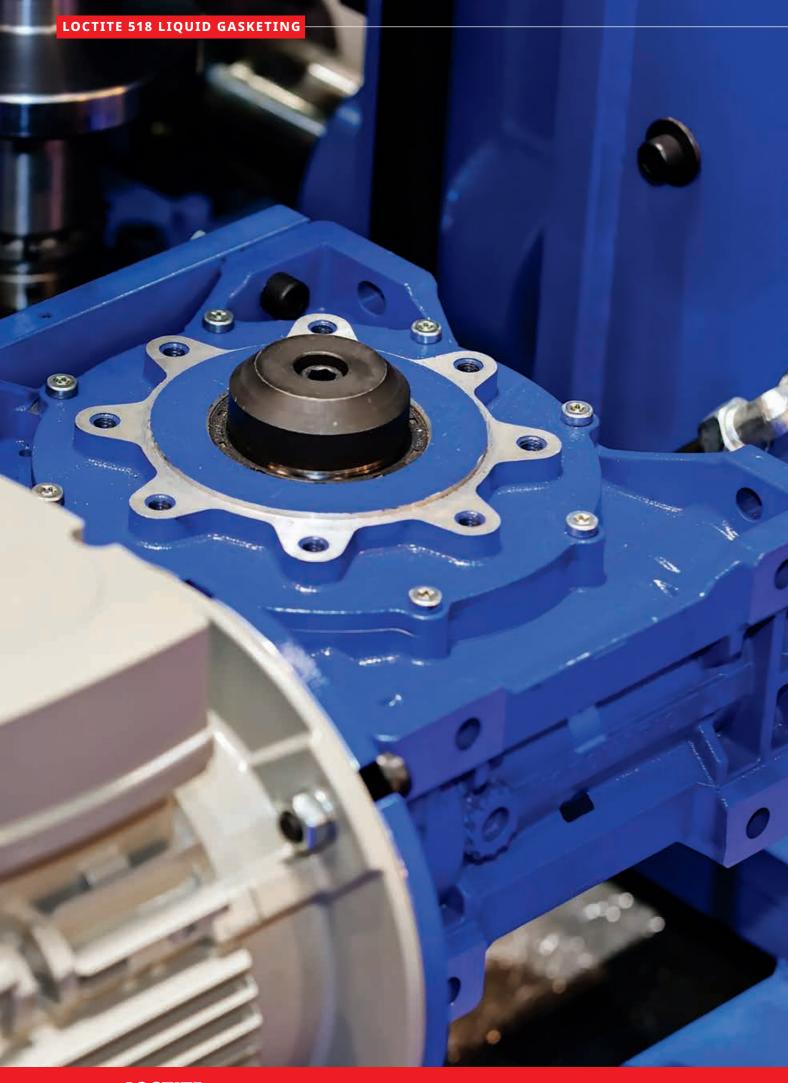
Please refer to page 128 for additional equipment/information.

#### **RIGID MACHINED FLANGES**

Produ	ct Pack Size	Colour	Features	Max Gap Fill, Unprimed* (mm)	Viscosity (mPa•s)	Thixotropic (Yes/No)	Temperature Range (°C)	Fixture Time on Steel (min.)
LOCTI 518	25 ml, 50 ml, 300 ml	Red	Semi-flexible, for use on rigid iron, steel and aluminium flanges	0,25	750.000	Yes	-55 to +150	25
LOCTI 510	50 ml, 160 ml, 250 ml, 300 ml	Opaque pink	High temperature applications	0,25	90.000**	Yes	-55 to +200	25
LOCTI 5188	50 ml 200 ml	Red	Flexible, for steel and aluminium flanges	0,25	21.000	No	-55 to +150	25
LOCTI 574	50 ml, 250 ml	Orange	High oil resistance, excellent water and glycol resistance	0,25	29.000	Yes	-55 to +150	15
LOCTI NS 554		Brown	High temperature	0,125	48.000	No	-40 to +704	Heat cure product
LOCTI NS 55	1 1 1/0	Brown	High temperature	0,64	2.000.000	No	-40 to +815	Heat cure product

<sup>\*</sup> Note: To increase gap fill, use a primer \*\* Different viscosity test used

TAMPI	ED OR FLEX	(IBLE FI	LANGES			
Product	Pack Size	Colour	Features	Extrusion Rate (g/min.)	Temperature Range (°C)	Tack Free Time (min.)
LOCTITE SI 5300	310 ml	Red	High temperature	250	-55 to +300	8
LOCTITE SI 5367	310 ml	White	For bonding and sealing applications; rapid skin formation	100	-55 to +250	5
LOCTITE SI 596	80 ml, 300 ml	Red	Excellent heat resistant, for automotive applications	min 250	-55 to +315	60
LOCTITE SI 5699	80 ml, 300 ml	Grey	For flexible flanges, machined or cast surfaces, metal or plastic, increased oil resistance	200	-55 to +200	30
LOCTITE SI 5900	300 ml	Black	Excellent oil resistance, high adhesion, high joint movement, excellent in water/glycol	30	-55 to +200	15
LOCTITE SI 5910	300 ml	Black	High joint movement, oil resistance, good on wide variety of plastics, glasses, ceramic, metals	500	-55 to +200	40
LOCTITE SI 5970	300 ml	Black	Excellent oil resistance, high joint movement, can be used with painted parts	60	-55 to +200	25
LOCTITE SI 5980	100 ml	Black	Excellent oil resistance, ideal for applications with large gaps	220	-55 to +200	30



# A Costly 5 % Leakage Rate Eliminated

FLANGE SIALANT

"A high leakage rate was causing warranty claims and production delays. LOCTITE's Engineering Solutions Expert helped us completely eliminate the problem."

A manufacturer of cast iron gear boxes and geared motors experienced a 5 % leakage rate using a competitor's liquid gasket on the adapter assembly flange. This was costly due to both leakage-related warranty claims on purchased units and testing and production delays caused by the slow cure rate. The competitive product also made it difficult to disassemble and repair the gearbox. **LOCTITE 518** Gasket Sealant was an ideal solution, offering a complete seal, quick curing, and easy disassembly.

A LOCTITE Engineering Solutions
Expert showed the plant's team how
to clean flange surfaces and dispense
LOCTITE 518 in a continuous bead.
Immediately following assembly,
LOCTITE 518 fills the gaps between
the flange surfaces and the products
can be instantly pressure tested
to 40 psi. Leaks have now been
eliminated and disassembly is easier
for customers.

#### **BENEFITS**

#### LOCTITE 518 Gasket Sealant:

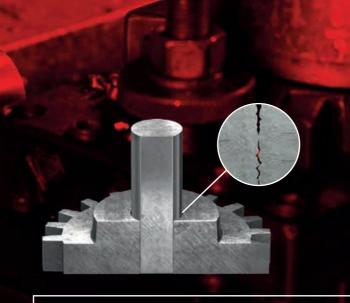
- Seals more effectively, eliminating leakage during operation
- Sustains low pressure testing of 1,35 bar immediately upon assembly
- Easily disassembles with a small amount of cleavage force

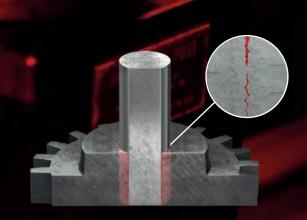
32 **LOCTITE** PRODUCT CATALOGUE GASKETING PRODUCTS

LOCTITE retaining compounds secure components.

For strong reliable assemblies.

# RETAINING





#### **PROBLEM**

Without retaining compounds: Mechanical fitting methods leave gaps between fitted parts which cause cylindrical assembly failure.

#### **SOLUTION**

With retaining compounds: Gaps are unitised to provide higher torsional loads and prevent fretting corrosion.

#### High loads

#### **High strength products**

Retaining compounds secure bearings, keyways and cylindrical parts into housings or onto shafts, forming strong assemblies. LOCTITE retaining compounds offer an effective and economical method to eliminate challenges like loosening, corrosion, backlash and wearing by unitising the assembly and providing uniform stress distribution. LOCTITE retaining compounds enable higher load transmission with existing design and geometry. Equal performance and lighter construction can be achieved with lower interference. At the same time component stress of interference fits can be reduced, which might lead to failure, particularly when combined with operational stresses.





#### **LOCTITE 638**

#### **General Purpose, Slip Fit**

LOCTITE 638 is recommended for slip fit parts with larger gaps. Excellent performance for dynamic, axial and radial loads. Tolerates minor surface contaminants and cures on inactive metals without an activator.

#### **Benefits:**

- P1 NSF Reg. No. 123010
- DVGW (EN 751-1): NG-5146AR0619
- WRAS (BS 6920): 0511518



**Gap:**Up to 0,25 mm



**Temperature Resistance:** 



Strength: 29 N/mm<sup>2</sup>



#### How to choose a retaining compound.



**GAP SIZE** 

#### **UP TO 0,15 MM**

Typically, lower viscosity retaining compounds are used for gaps up to 0,15 mm. These are typically tight fitting interference fits like those found in shrink fits.

#### 0,15 TO 0,25 MM

For gaps above 0,15 mm retaining compounds with higher viscosities that allow for better gap fill are used. These include bonded slip fits.

#### 0,25 TO 0,5 MM

For assemblies with large gaps that are badly worn, special paste-like retaining compounds should be used.





#### TEMPERATURE RESISTANCE

Most LOCTITE retaining compounds are able to withstand temperatures of -55 to +150 °C. However, certain chemistries are available that withstand temperatures up to +180 to +230 °C for assemblies which see higher service temperatures.



#### STRENGTH

A high-strength retaining compound is recommended for applications that do not need to be disassembled or require extremely high torsional loads. If parts need to be taken apart for maintenance, a lower strength product should be used to aid in disassembly.





#### **LOCTITE 660**

#### **Badly Worn Assemblies\***

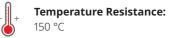
LOCTITE 660 is designed for repairing worn coaxial parts without remachining. Enables re-use of worn bearing seats, keys, splines or tapers, or for retaining shims.

• P1 NSF Reg. Nr.: 123704

\* In combination with activator



#### Gap: Up to 0,5 mm







LOCTITE. **PRODUCT CATALOGUE RETAINING COMPOUNDS** 

#### Find the right product for your application



#### **□♦□ GAP SIZE**

Up to 0,15 mm

**LOCTITE 603** 

**LOCTITE 641** 

**LOCTITE 648** 

0,15 to 0,25 mm

**LOCTITE 620** 

**LOCTITE 638** 

0,25 to 0,5 mm

**LOCTITE 660** 

#### Gap Size up to 0,15 mm



**LOCTITE 603** General Purpose



**LOCTITE 641** 

Temperature resistance:



Temperature resistance:



Strength: 6,5 N/mm<sup>2</sup>

Cure speed: 24 h Fixture time: 8 min

Cure speed: 24 h Fixture time: 25 min



**LOCTITE 648** 



Temperature resistance:



Strength: 31 N/mm<sup>2</sup>

Cure speed: 24 h Fixture time: 3 min.

**SEE THE FULL PORTFOLIO** 

retaining.loctite.us

#### Gap Size 0,15 to 0,25 mm



Cure speed: 24 h

**LOCTITE 620** High Temperature

Temperature resistance:  $230 \, ^{\circ}\text{C*}$ 

Strength: 17,2 N/mm<sup>2</sup>



**LOCTITE 638 General Purpose** 



Temperature resistance:



Strength: 29 N/mm<sup>2</sup>

Cure speed: 24 h

**LOCTITE 660 Badly Worn Assemblies** 

Gap Size 0,25 to 0,5 mm



Temperature resistance:



Strength: 17,2 N/mm<sup>2</sup>

Cure speed: 24 h

**OF RETAINING COMPOUNDS AT:** 





\*\* Optimised Health & Safety products focusing on people safety. Enhancing safety in production, application and end-use.

LOCTITE.

#### **Surface Preparation**



**LOCTITE SF 7070** 



Solvent-based (non-CFC) parts cleaner formulated for plastics and metals. Suitable for use as a spray, wipe or in immersion cleaning at room temperature, the product is able to remove most oils, greases, lubrication fluids, metal cuttings and fines from plastic parts without the risk of stress cracks.



LOCTITE SF 7649

Designed to promote the curing speed of LOCTITE anaerobic adhesives and sealants without any significant loss of joint strength. Especially recommended for applications with passive metals or inert surfaces and with large bond gaps.

#### **Equipment**

#### Pressure/Time System



LOCTITE 97152
Dual Channel Controller
IDH 1275665

It is a versatile multi-functional controller for actuating 1 – 2 dispensing valves as well as appropriate peripheral equipment such as reservoir, advancing slide, rotorspray and line flow monitor.



LOCTITE 97113
Stationary Applicator valve
IDH 88644

97113/97114 are designed for pressure-time applications with anaerobic and light cure adhesives up to viscosities of 15.000 mPa·s for the 97113 or higher viscosities for the 97114.

#### **Volumetric System**



LOCTITE EQ RC15
Pump Controller
IDH 1880232

It provides all control required for both the 97611 and 97621 Compact Rotor Pumps. This controls all the dispensing parameters such as pump speed, volume dispense, reservoir pressure and rotorspray control.



LOCTITE 97611 Compact Rotor Pump 4.0 IDH 1196160

It is a precision volumetric dispenser for accurate dispensing applications suitable for anaerobic, light cure and acrylic adhesives with flow rates from 500 to 6.000  $\mu$ l/min.



**LOCTITE 97108** 2 | Reservoir

It accommodates LOCTITE bottles and is equipped with a pneumatic connection and an electrical interface for setup with all LOCTITE controllers. It suits adhesive bottle sizes 250 ml, 500 g, 1 l, 2 l and 2 kg.

IDH 135555



LOCTITE 97115 Rotorspray IDH 135557

It is used to apply anaerobic adhesives to the interior cylindrical surfaces of work pieces. The rotorspray enables high speed rotation for large and small rotor disks.

The 2 I Reservoir and Rotorspray can be used with either the Pressure/Time System or the Volumetric System.

Please refer to page 130 for additional equipment / information.

#### **RETAINING COMPOUNDS**

Product	Pack Size	Colour	Features	Viscosity (mPa•s)	Thixotropic (Yes/No)	Compressive Shear Strength, Steel to Steel (N/mm²)	Fixture Time (min.)	Temperature Range (°C)	
GAP SIZE UP TO 0,15 MM									
LOCTITE 603	OCTITE 603 50 ml, 250 ml Green Oil tolerant for press fit, low viscosity		125	No	22,5	8	-55 to +150		
LOCTITE 641	50 ml, 250 ml	Yellow	Medium strength for disassembly	600	No	6,5	25	-55 to +150	
LOCTITE 648	50 ml, 250 ml	Green	High strength, temperature resistance, can be applied to slightly oily surfaces	500	No	31	3	-55 to +180	
GAP SIZE 0,15	TO 0,25 MM								
LOCTITE 620	10 ml, 50 ml, 250 ml	Green	Slow fixture, high strength, temperature resistance	8.000	No	17,2	60	-55 to +230*	
LOCTITE 638	50 ml, 250 ml	Green	High strength, high temperature resistance for slip-fitted parts, can be applied to slightly oily surfaces	2.500	No	29	4	-55 to +180	
GAP SIZE 0,25	TO 0,5 MM	1		1	1		1		
LOCTITE 660	50 ml	Silver	High strength, large gap fill for repair	250.000	Yes	17,2	15	-55 to +150	

<sup>\*</sup> After 30 min. heat cure at 180 °C

**LOCTITE** PRODUCT CATALOGUE RETAINING COMPOUNDS



# A 5 Day Repair Reduced to 8 Hours



"We not only minimised our plant downtime on this repair, we also reduced the likelihood of future repairs and downtime."

A loose, spinning bearing had damaged a large fan shaft at a cement manufacturer. Hardfacing and machining the shaft would have taken five days of downtime, and it could have led to future weakening and damage from distortion and fretting corrosion. The solution:

LOCTITE 638 Retaining Compound. It fills voids, prevents fretting corrosion and evenly distributes high load stress.

A LOCTITE Engineering Solutions
Expert provided training on this new repair method, and in just 8 hours, maintenance personnel cleaned and removed the main bearing, applied **LOCTITE 638** to the shaft, slipped the bearing into the proper position and the fan was up and running.

#### **BENEFITS**

#### **LOCTITE 638 Retaining Compound:**

- Allows maintenance personnel to make efficient, in-plant repairs
- · Reduces downtime
- Prevents future damage and maintains long-term repair viability

42 **LOCTITE** PRODUCT CATALOGUE RETAINING COMPOUNDS

INSTANT ADHESIVES

Fast, lightweight, multi-material bonding.

For more design options.





#### **PROBLEM**

Without instant adhesives: Fastening options that add complexity, slow production or limit materials.

**SOLUTION** 

With instant adhesives: Strong, fast lightweight bonding of a wide range of materials.

#### Bonds more material.

#### Faster.

Instant adhesives are ideal for bonding small to medium-size parts with close fitting, smooth surfaces. They provide fast cure speeds and excellent bond strengths to a wide variety of substrates. LOCTITE instant adhesives are available in a range of formulations for anything from general purpose repairs to specialty high-performance assembly applications.



#### How to choose an instant adhesive.

#### **GENERAL PURPOSE VS. SPECIALTY ADHESIVES**

LOCTITE has an instant adhesive formulated for any application.

#### **GENERAL PURPOSE**

Strong and versatile enough for the vast majority of applications, including acidic surfaces such as chromated or galvanised metals and porous substrates such as wood, paper, leather, cork and fabric.

#### **TOUGHENED**

Elastomer modified adhesives for applications subjected to high shock, impact and humidity.

#### FLEXIBLI

For bonding materials subjected to bending or distortion, as well as flexible components.

#### **HIGH TEMPERATURE**

For operating temperatures up to 120 °C.

#### LOW ODOUR/LOW BLOOM

Low volatile adhesives for applications where cosmetic appearance, minimal frosting and low odour are required.

#### **HIGH GAP FILL**

For applications with gaps up to 0,15 mm. 2-K technologies provide fast cure independent of gaps up to 5 mm.

#### LIGHT CURE

Designed to cure very rapidly upon exposure to UV/visible light of the proper intensity.



#### VISCOSITY

Available in viscosities from thin liquids to thixotropic, no-run gels.



#### FIXTURE SPEED

Available in various fixture speeds to accommodate applications that may require instant set times to those that may require minor adjustment time.



#### STRENGTH

Available in shear resistant, general purpose formulations to toughened, high impact, high peel resistant formulations to meet the specific strength requirements of your application.



#### **LOCTITE 401**

#### **Fast, Medium Viscosity**

LOCTITE 401 is designed for the assembly of difficult-to-bond materials requiring uniform stress distribution and high tensile and/or shear strength. It provides for the rapid bonding of e.g. metals, plastics and elastomers. LOCTITE 401 is also suited to bonding porous materials such as wood, paper, leather and fabric. Perfect for all quick repairs and all types of small emergency repairs.

#### **Benefits:**

• P1 NSF Reg. No.: 123011



#### Viscosity:





Fixture speed: 3 – 10 sec. Full cure: 24 h



#### Strength:

20 N/mm<sup>2</sup>







#### **LOCTITE 454**

#### Ge

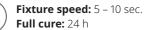
LOCTITE 454 is designed for the assembly of difficult-to-bond materials which require uniform stress distribution and high tensile and/or shear strength. It provides for the rapid bonding of e.g. metals, plastics and elastomers. The gel consistency enables overhead and vertical application without dripping. LOCTITE 454 is also suited to bonding porous materials such as wood, paper, leather and fabric. Perfect for all quick repair jobs.

#### Benefits:

P1 NSF Reg. No.: 123009



#### Viscosity:





**LOCTITE** PRODUCT CATALOGUE INSTANT ADHESIVES

#### Find the right product for your application



#### **General Purpose**

**LOCTITE 401** 

**LOCTITE 402** 

**LOCTITE 406 LOCTITE 454** 

**LOCTITE 495** 

Toughened

**LOCTITE 435 LOCTITE 480** 

Low Odour/Low Bloom

**LOCTITE 460** 

High Gap Fill

**LOCTITE 3090** 

#### **General Purpose**



Colour: Clear

LOCTITE



Viscosity: 100 mPa·s

Strength: 20 N/mm<sup>2</sup>

**Toughened** 

LOCTITE

Surface Insensitive

Viscosity: 200 mPa·s

Strength: 18,5 N/mm<sup>2</sup>

Colour: Clear

Fixture speed: 10 - 20 sec. Full cure: 24 h

435

Fixture speed: 3 - 10 sec. Full cure: 24 h



LOCTITE 402





Viscosity: 80 mPa·s



Fixture speed: 3 – 10 sec. Full cure: 24 h



Strength: >15 N/mm<sup>2</sup>

Colour: Clear

Temperature resistance: -40 - +135 °C

LOCTITE

Black, High Strength

Fixture speed: 20 – 50 sec. Full cure: 24 h

Viscosity: 200 mPa·s

Strength: 26 N/mm<sup>2</sup>

Temperature resistance: 100 °C

480



**LOCTITE** 



Viscosity: 20 mPa·s



**LOCTITE** 454

Fixture speed: 5 – 10 sec. Full cure: 24 h

Strength: 20,9 N/mm<sup>2</sup>

Viscosity: Gel



LOCTITE 495

Low-Medium Viscosity



Viscosity: 30 mPa·s



Fixture speed: 5 –20 sec. Full cure: 24 h

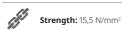


Strength: 14,2 N/mm<sup>2</sup>

Colour: Clear

Temperature resistance: 120 °C

Fixture speed: 2 – 10 sec. Full cure: 24 h





### Low Odour/

**Low Bloom** 



460 Close Fitting Parts



Viscosity: 40 mPa·s



Fixture speed: 5 - 20 sec. Full cure: 24 h





Strength: 21 N/mm<sup>2</sup>

Colour: Colourless to straw

#### High **Gap Fill**

Colour: Clear



LOCTITE 3090



Viscosity: Gel



Fixture speed: 120 sec.\* Full cure: 24 h



Strength: 21 N/mm²

Colour: Clear to slightly cloudy Temperature resistance: 80 °C

**HAVE A UNIQUE APPLICATION? SEE THE FULL LINE:** 

instant-adhesives.loctite.us

**INSTANT ADHESIVES** 

LOCTITE PRODUCT CATALOGUE

<sup>\*</sup> For varying or undefined bond gaps up to 5 mm \*\* UV/Visible Light Sources: Electrodeless, H bulb: 30 mW/cm², measured @ 365 nm

#### **Surface Preparation**



**LOCTITE SF 7070** 

Colour: Colourless Viscosity: 2,0 mPa·s Base: Hydrocarbon Dry time: 5 to 20 minutes



**LOCTITE SF 770** 

Colour: Clear Viscosity: 1,25 mPa·s Base: n-Heptane Dry time: <30 sec.

On-part life: 8 h



**LOCTITE SF 7455** 

Colour: Clear Viscosity: 0,5 mPa·s Base: n-Heptane Dry time: ≥60 sec. On-part life: 1 min.

#### **Equipment**



**LOCTITE EQ PU20** Digital Peristaltic Dispenser

The LOCTITE EQ PU20 Digital Peristaltic Dispenser is a reliable and effective volumetric dispenser for single-component, low viscosity adhesives. It is great for precise dosing or applications that require a specific flow rate.

IDH 2265279



**LOCTITE 97009** 

Semi-Automatic Dispensing System HP (High Pressure) IDH 215845

Enables dispensing of the adhesive directly from the larger bottles. The controller provides digital timing control for any LOCTITE automatic dispense valve or automatic hand-held applicator. It is equipped with a precision pressure regulator: >0,1 - 4,0 bar for viscosities >1.500 mPa·s.



**LOCTITE EQ RC18** Semi-Automatic Dispensing System LP (Low Pressure)

Enables dispensing of the adhesive directly from the larger bottles. The controller provides digital timing control for any LOCTITE automatic dispense valve or automatic hand-held applicator. It is equipped with a precision pressure regulator: >0,1 – 0,7 bar for the RC18 (Low Pressure) for viscosities

IDH 2260508



**LOCTITE EQ VA40** 

CA Volumetric Valve IDH 2333708

It is a positive displacement metering valve designed for dispensing precise volumetric drops of CA's with each cycle. Positive displacement dispensing is not influenced by variations in pressure, time, temperature or adhesive viscosity therefore making the EQ VA40 an excellent choice for low to medium viscosity drop applications where accuracy and precision are required.



**LOCTITE 98009** 

Light Cure Diaphragm Dispense Valve IDH 218280

It is a normally closed diaphragm valve that provides high-resolution stroke adjustment and results in consistent flow control.



**LOCTITE 98013** CA Diaphragm Dispense Valve IDH 318654

It is a normally closed diaphragm valve that provides high-resolution stroke adjustment and results in consistent flow control.



#### **INSTANT ADHESIVES**

Product	Pack Size	Colour	Gap Fill (mm)	Viscosity (mPa•s)	Shear Strength, GBMS (N/mm²)	Temperature Range (°C)	Fixture Speed, Steel (sec.)		
GENERAL PURPOSE									
LOCTITE 401	20 g, 500 g	Clear	0,15	100	20	-40 to +120	3 – 10		
LOCTITE 402	20 g, 500 g	Clear	0,15	80	>15	-40 - +132	3 – 10		
LOCTITE 406	20 g, 500 g	Clear	0,15	20	15,5	-40 to +120	2 – 10		
LOCTITE 454	20 g	Clear	0,15	Gel	20,9	-40 to +120	5 – 10		
LOCTITE 495	20 g, 500 g	Clear	0,15	30	14,2	-40 to +120	5 – 20		
TOUGHENED									
LOCTITE 435	20 g, 500 g	Clear	0,15	200	18,5	-40 to +100	10 – 20		
LOCTITE 480	20 g, 500 g	Black	0,15	200	26	-40 to +100	20 - 50		
LOW ODOUR	LOW BLOOM								
LOCTITE 460	20 g, 500 g	Colourless to straw	0,15	40	21	-40 to +80	5 – 20		
HIGH GAP FIL	L								
LOCTITE 3090	11 g	Clear to slightly cloudy	5	Gel	21	-40 to +80	120		

<sup>\*</sup> Note: Faster fixture times can be achieved with light cure.



It is a pneumatically operated handheld dispense valve, designed to be used in conjunction with pressure-time dispense systems.

LOCTITE SERVICES

REDUCE COMPLEXITY AND TIME WHILE EXPANDING DESIGN.

services.loctite.us

Please refer to page 128 for additional equipment/information.

PRODUCT CATALOGUE **INSTANT ADHESIVES** 



# Improved Appearance, Durability and Production Speed



"LOCTITE helped make our signs more aesthetically pleasing and stronger while enabling us to ship more product faster."

The thick bond lines and slow curing speed of a high-viscosity RTV used to bond aluminium letters to PVC sign boards was causing aesthetic issues and delaying production for a retail sign manufacturer. In addition, letters were sometimes lost due to the low bond strength of the RTV.

LOCTITE 401 Instant Adhesive, which cures more quickly and minimises the gap between the letters and the sign board, was an ideal solution.

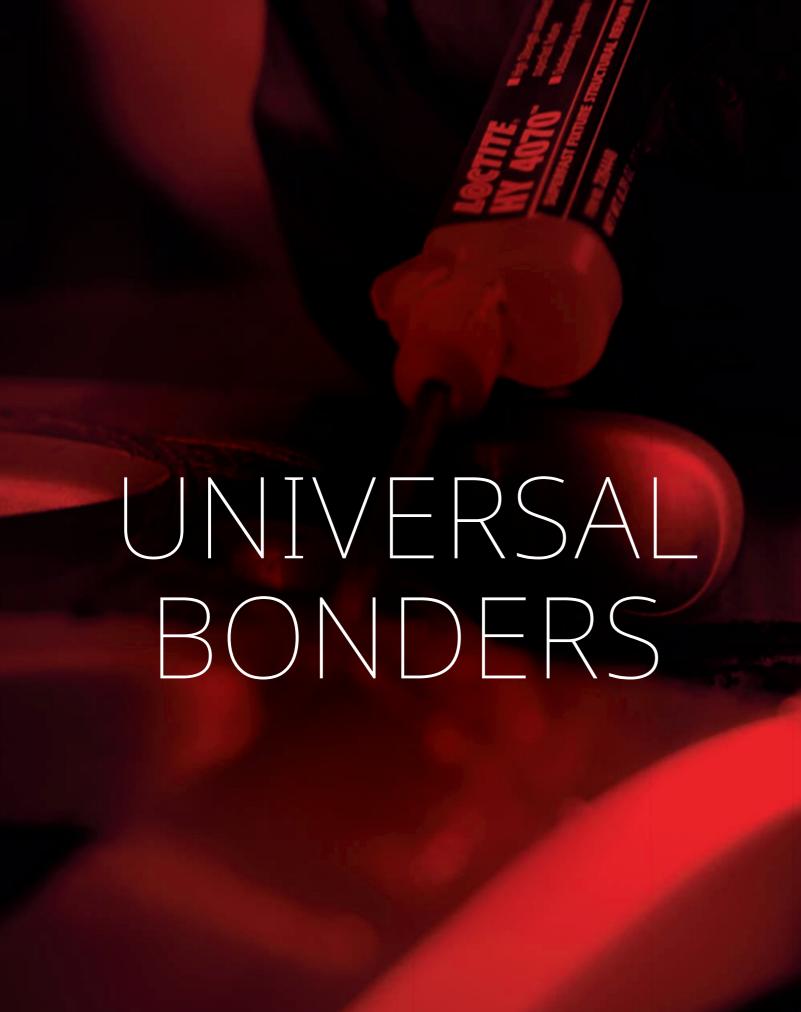
A LOCTITE Engineering Solutions Expert showed how just a few small drops of **LOCTITE 401** on each sign letter, which was then applied to the sign board with light hand pressure, allowed the sign company to manufacture signs more quickly and provide customers with a higher quality product.

#### **BENEFITS**

#### LOCTITE 401 Instant Adhesive:

- Minimises gap and improves aesthetic appeal with thin bond lines
- Cures fast, maximising production output and lowering overall production costs
- Has high bond strength that eliminates loss of sign letters and addresses customer complaints

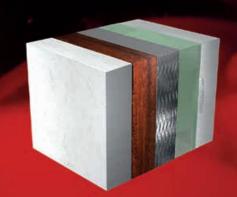
**LOCTITE** PRODUCT CATALOGUE INSTANT ADHESIVES



LOCTITE HY 4070 and LOCTITE HY 4090

Almost nothing they can't do.





#### **PROBLEM**

Without Universal Bonders: Multiple material assemblies require additional primers, more cure time and are susceptible to vibration, temperature changes and humidity.

#### **SOLUTION**

With Universal Bonders: Strong, durable, fast bonding of multiple materials.

**UNIVERSAL BONDERS** 

4 **LOCTITE** PRODUCT CATALOGUE

#### The most versatile adhesive.

# In your toolbox.

Faster fixture. Faster repairs.





#### **LOCTITE HY 4070**

**Universal Bonder, Ultra Fast Structural Adhesive** 

LOCTITE HY 4070 is a 2K, transparent, colourless to pale yellow cyanoacrylate/ acrylic hybrid gel adhesive that provides a fast fixture at room temperature in bond gaps up to 5 mm. It suits various substrates including most plastics, rubbers and metals. It is used where complete cure of excess adhesive as well as temperature and moisture resistance is required.

#### **Benefits:**

- Gel consistency prevents adhesive flow



Fixture time:

<60 sec.



Strength: 25 N/mm<sup>2</sup>



Substrate:

Plastic, rubber, metal, wood

#### **DISPENSERS**

**LOCTITE 96001** 50 ml Dual Cartridge **Manual Handgun** 

IDH 267452

11 g

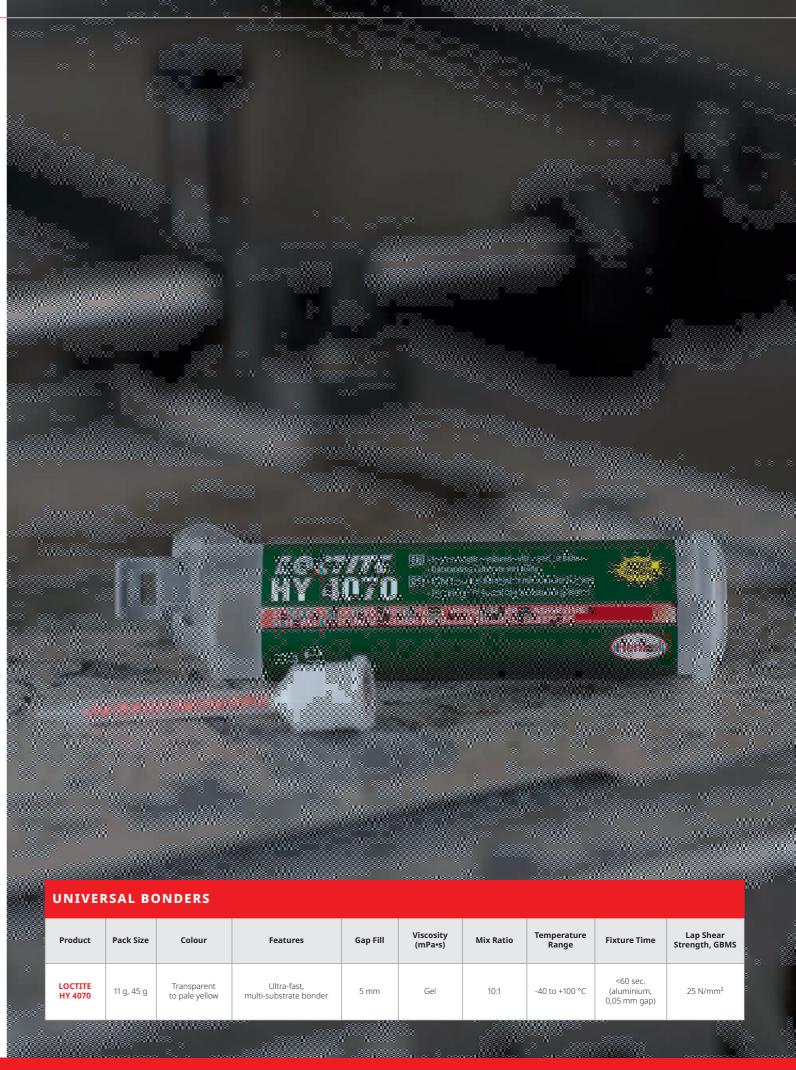
**NOZZLES** 

IDH 1509102

IDH 1453183

Please refer to page 128 for additional equipment/information.





**PRODUCT CATALOGUE UNIVERSAL BONDERS** 



Thixotropic

-40 to +120 °C

10 min

25 N/mm<sup>2</sup>

# Fast curing adhesives.

# For industrial design solutions.

Create strong and reliable bonds with LOCTITE HY 4090.



BEST SELLER



# LOCTITE

**Universal Bonder, Fast & Versatile Structural Adhesive** 

LOCTITE HY 4090 is an off-white to light yellow (gray for LOCTITE HY 4090 GY) gel with high viscosity. It opens up new application areas in structural bonding by combining instant adhesive properties with those of epoxies to give more striking benefits:

- Fixture time of 90 180 seconds and suitable for gaps up to 5 mm
- Resistant to vibration, shock loads and impacts



Fixture time:

<180 sec.



Strength: 17 N/mm<sup>2</sup>



Substrate: Plastic, rubber, metal, wood



LOCTITE HY 4080 is a 2-part, opaque to slightly yellow, cyanoacrylate/acrylic hybrid structural bonding adhesive. Provides toughness and excellent adhesion. It shows high operational strength within the first hour of cure. Specific benefits:

- High viscosity (thixotropic)
- Good resistance to peel and impact loads



Fixture time:

10 - 12 min



Strength: 25 N/mm<sup>2</sup>



Substrate: Metals, composites, plastics



#### **DISPENSERS**

**LOCTITE 96001** 50 ml Dual Cartridge **Manual Handgun** 

IDH 267452

**LOCTITE 97042** 50 ml Dual Cartridge **Pneumatic Handgun** 

IDH 478698

**LOCTITE EQ HD14** 400 ml Dual Cartridge **Pneumatic Dispenser** 

IDH 2693825

50 ml

IDH 1826921

400 ml

IDH 1573135

Please refer to page 128 for additional equipment/information.

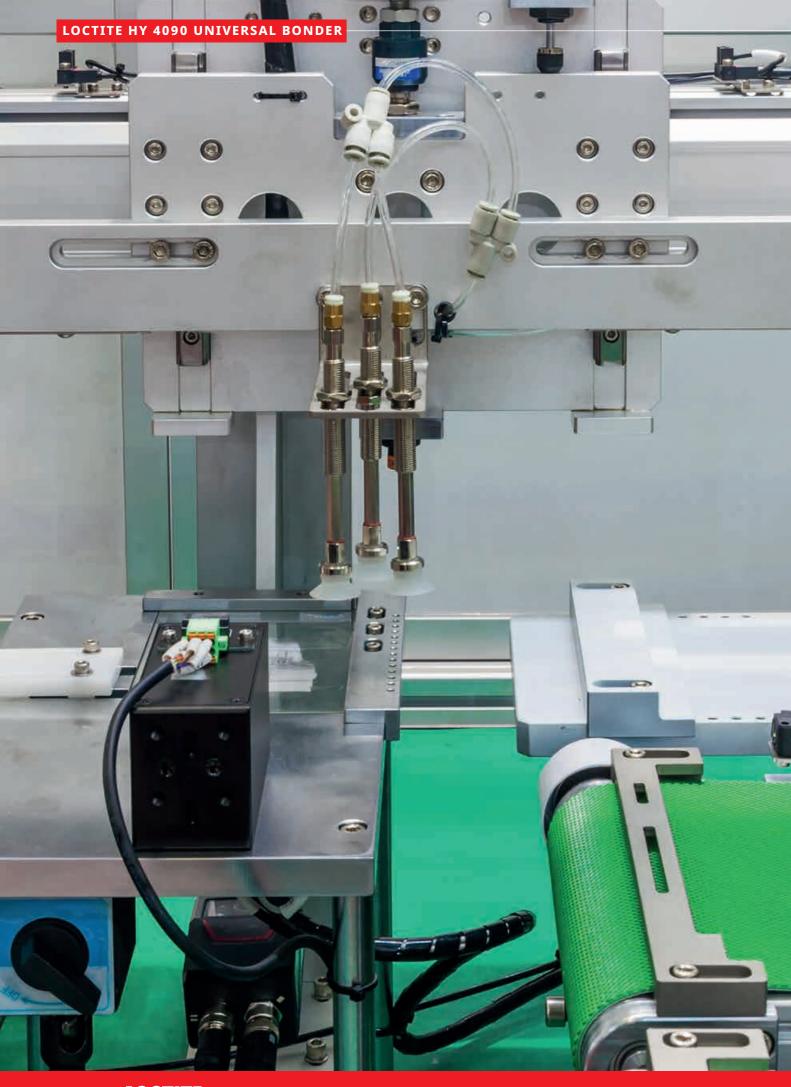
50 g

LOCTITE

PRODUCT CATALOGUE

composites and plastics

Opaque to slightly yellow that provides toughness and excellent adhesion to metals,



# **Fast, Durable Bonding** of High Volume PA and **ABS Components**



"LOCTITE had the perfect adhesive solution to help bring our new product to life."

A designer and manufacturer of battery packs for electronic devices was designing a new product and searching for an adhesive to bond PA and ABS plastics. The adhesive needed to allow for projected production line volumes and be resistant to vibration, temperature and humidity variances. **LOCTITE HY 4090**, a fast curing universal bonder that provides strong bonds without primers or other surface treatments, was a perfect candidate.

A LOCTITE Engineering Solutions Expert showed them how to clean battery pack parts with LOCTITE SF 7063 to remove molding compounds that may inhibit final bond strengths, then dispense **LOCTITE HY 4090** from the dual cartridge packaging using the LOCTITE manual applicator equipped with a mixer nozzle. The hybrid adhesive fixtured in just 3 minutes, minimising any potential blooming from exposed fillets of the cyanoacrylate based product, and provided a bond to PA and ABS plastics that withstood vibration, temperature and humidity variances.

#### **BENEFITS**

#### **LOCTITE HY 4090 Universal Bonder:**

- Generates strong, multi-material bonds without requiring additional surface
- Provides a fast fixture rate of 3 minutes that will not impede the proposed
- Results in assemblies that resist vibration, temperature changes and attack by high humidity

LOCTITE. **PRODUCT CATALOGUE UNIVERSAL BONDERS** 

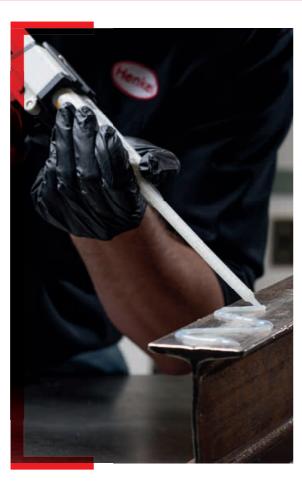


#### Take off the weight. Take on the load.

Structural adhesives join two materials firmly and permanently. The adhesive is the "bridge" between the substrates and provides advantages such as:

- Uniform stress distribution for better product reliability
- Design freedom for light weight constructions

Adhesives are easy to apply and assemble. The selection of the right adhesive depends on some factors like adhesive-material compatibility and joint requirements.





#### **LOCTITE AA 326**

#### Fast Fixture, Small Gaps, 2-Step

LOCTITE AA 326 is a yellow to amber, 2K no mix, medium viscosity (thixotropic) structural and magnet bonder which is activated with LOCTITE SF 7649. It has good adhesion to different types of ferrites, a fixture time of 3 minutes and a shear strength of 15 N/mm<sup>2</sup>. It can be used in temperature up to 120 °C.

#### **Benefits:**

- Fast fixture
- High strength
- · All purpose bonder



#### Fixture speed:

3 min.



#### Substrate:

Aluminium, steel, ferrite

# Henke

#### How to choose a structural adhesive.

#### **GENERAL PURPOSE VS. SPECIALTY ADHESIVES**

LOCTITE has a wide range of structural adhesives, from general purpose – strong and versatile enough to cover the majority of applications, to specialty - formulated for cases where special properties are needed.

#### **HIGH PERFORMANCE**

Solutions designed for a range of product needs, with respect to impact strength, peel strength, durability, working time

#### **FLEXIBLE SOLUTIONS**

Offering excellent shock absorption, elasticity and adhesion to plastics, metals and glass.

#### **SPECIAL SUBSTRATES**

From epoxies designed to be safe for food and water contact to acrylics and polyurethanes for bonding e-coated metals, rigid foams, plastics and glass.

#### BONDING FERRITE **COMPONENTS**

Epoxies and acrylics designed for the specific requirements of bonding ferrite (magnets).

#### **POTTING**

Flowable epoxies designed for filling cavities and protecting components.





#### **LOCTITE EA 3430**

#### **Optically Clear, Water-Resistant**

LOCTITE EA 3430 is a 2K, clear epoxy adhesive which cures rapidly at room temperature after mixing. It is a general purpose adhesive which develops high strength on a wide range of substrates. The gap filling properties make this adhesive system suitable for rough and poorly fitting surfaces.

#### **Benefits:**

- · High transparent
- Water resistance
- · Fast curing



#### Fixture speed:



#### Substrate:

Metal, glass, ceramic, rigid plastic

Legend for your adhesive choice:



**FIXTURE SPEED** 

A range of fixture times from ultra fast to slow to meet your process requirements.



**SUBSTRATE** 

LOCTITE structural adhesives can bond most materials.

LOCTITE.

**PRODUCT CATALOGUE** 

#### Find the right product for your application



#### **GENERAL PURPOSE**

**LOCTITE AA 326 LOCTITE AA 330 LOCTITE EA 3421 LOCTITE EA 3423** 

#### **SPECIALTY**

#### **Working Life/Heat Cure**

#### **WORKING LIFE**

Time ranges (before assembly) from fast to slow to meet your process requirements.

<1 Hour	≥1 Hour
LOCTITE EA 3450	LOCTITE EA EA E-30CL
<b>LOCTITE EA 9450</b>	LOCTITE EA 9497
<b>LOCTITE EA 9461</b>	
LOCTITE EA 3430	

#### **Heat Cure**

**LOCTITE EA 9514** 

#### **High Performance**

**LOCTITE AA 3298 LOCTITE AA 3342 LOCTITE EA 9466 LOCTITE EA 9492** 

#### **Plastic Repair**

**TEROSON PU 9225 SF** TEROSON PU 9225 SF ME TEROSON PU 9225 UF ME

#### **Multi-Substrate Repair Bonder**

**TEROSON PU 6700 TEROSON PU 6700 ME** 

#### **General Purpose**



Fixture speed: 3 min.

Temperature resistance: 120 °C

Colour: Pale yellow
Chemistry: Two-step acrylic

Activator: LOCTITE SF 7388

LOCTITE **AA 330** 



LOCTITE **AA 326** Magnet Bonding, High Viscosity



Fixture speed: 3 min.



Substrate: Metals, ceramic, plastics



Substrate: Aluminium, steel, ferrite

Temperature resistance: 120 °C Colour: Light amber Chemistry: Two-step acrylic Activator: LOCTITE SF 7649

LOCTITE **EA 3421** 



LOCTITE **EA 3423** 



Working life: 30 - 150 min.



Working life: 30 - 60 min.



Substrate: Metals, ceramics, rigid plastics, wood



Substrate: Metals (can be sanded)



Temperature resistance: 120  $^{\circ}\text{C}$ Chemistry: 2K Epoxy

#### LOCTITE SERVICES

**IMPROVE STRENGTH AND AESTHETICS IN REDUCED TIME.** 

services.loctite.us

#### Work Life/Heat Cure

#### WORKING LIFE\* < 1 HOUR



#### LOCTITE **EA 3450** Rapid Cure, High Strength

Working life: 4 - 6 min.



#### LOCTITE **EA 9450**

Working life: 2 - 7 min.

Substrate: Metals, ceramic,

LOCTITE

**EA 9497** 

Thermally Conductive

Working life: 165 – 255 min.

Substrate: Metals, ceramics

Temperature resistance: 180 °C

Chemistry: 2K Epoxy

High Compression Strength

glass, most plastics



#### LOCTITE **EA 9461**



#### LOCTITE **EA 3430** Optically Clear, Water-Resistant



Working life: 5 - 10 min.



Substrate: Metals, ceramics, rigid plastics, thermoset



Substrate: Glass, metals, ceramics, rigid plastics, wood

Temperature resistance: 100 °C Chemistry: 2K Epoxy

#### Substrate: Metals, ceramics, rigid plastics, wood

WORKING LIFE\* ≥ 1 HOUR

LOCTITE

High Strength, Optically Clear

Working life: 30 min.

Metal, Plastic

Temperature resistance: 120  $^{\circ}\text{C}$ 

Chemistry: 2K Epoxy

Substrate: Ceramic, Glass,

EA E-30CL

Temperature resistance: 100  $^{\circ}\mathrm{C}$ Chemistry: 2K Epoxy

Temperature resistance: 100 °C Chemistry: 2K Epoxy

Temperature resistance: 120 °C







Working life: Cure above 120°C



Substrate: Metals, ceramics,



some plastics

Temperature resistance: 150  $^{\circ}\text{C}$ Chemistry: Epoxy

\* Working life = maximum time before assembly

LOCTITE

#### **High Performance**



#### LOCTITE EA 9492 High Temperature, Chemical Resistance

Working life: 15 min.



LOCTITE EA 9466 High Peel Resistance, High Shear Strength



Working life: 60 min.



**Substrate:** Metals, ceramics, rigid plastics



Substrate: Metals, ceramics,

Temperature resistance: 180 °C Colour: White Chemistry: 2K Epoxy Temperature resistance: 120 °C Colour: Off-white Chemistry: 2K Epoxy

#### **Plastic Repair**



TEROSON
PU 9225 SF
Fast Cure, Holes <5 cm



Pot life/Working life: 2 min.



Substrate: Paintable plastic

Colour: Dark grey Chemistry: 2K Polyurethane Primer: TEROSON 150

#### **Equipment**

#### **DISPENSERS**

#### **Pneumatic**



#### Manual



#### 50 ml

LOCTITE 96001 50 ml 1:1/2:1 Dual Cartridge Applicator Manual

IDH 26745

LOCTITE 97042 50 ml 1:1/2:1 Dual Cartridge Applicator Pneumatic IDH 476898 50 ml 10:1 Dual Cartridge Applicator Manual

IDH 1034026

50 ml 10:1 Dual Cartridge Applicator Pneumatic IDH 1493310

1.1 - 10

#### 200 ml

LOCTITE EQ HD14 200 ml Dual Cartridge Manual Dispenser 1:1 – 10:1

IDH 2693822

LOCTITE EQ HD14 200 ml Dual Cartridge Pneumatic Dispenser 1:1 – 10:1

IDH 2693824

400 ml LOCTITE EQ HD14 400 ml Dual Cartridge Manual Dispenser 1:1 - 10:1

IDH2693823

IDH2693825

LOCTITE EQ HD14 400 ml Dual Cartridge Pneumatic Dispenser 1:1 – 10:1

#### **NOZZLES**



50 ml Epoxy Nozzle

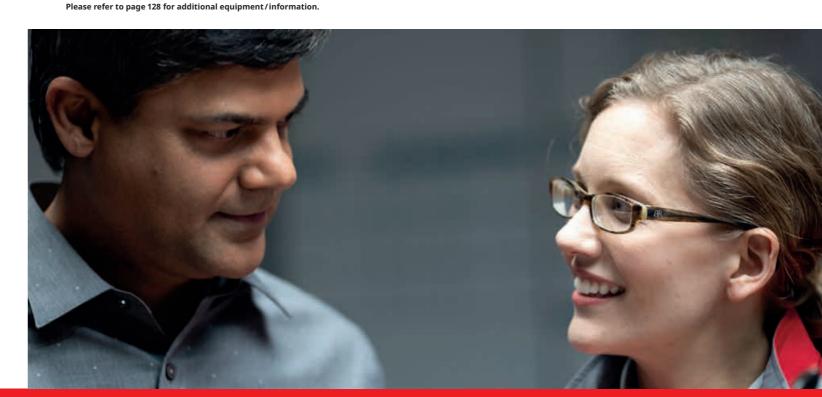


IDH 142242

50 ml Polyurethane Nozzle

400 ml Epoxy Nozzle HAVE A UNIQUE APPLICATION?
SEE THE FULL LINE:

structurals.loctite.us



**LOCTITE** PRO

2-STEP	2-STEP ACRYLICS										
Product	Pack Size	Features	Colour	Viscosity (mPa•s)	Gap Fill (mm)	Fixture Time (min.)	Shear Strength, GBMS (N/mm²)	Temperature Resistance (°C)			
GENERAL PU	RPOSE										
LOCTITE AA 330	50 ml kit	General purpose adhesive for metals, ceramic, plastics	Pale yellow	67.500	0,5	3	23	120			
MAGNET BON	MAGNET BONDING										
LOCTITE AA 326	50 ml	Ferrites to plated materials in electric motors, loudspeakers hardware, jewellery	Light amber	18.000	0,5	3	15	120			

EPOXIE	S								
Product	Pack Size	Features	Colour	Viscosity (mPa•s)	Mix Ratio	Fixture Time (min.)	Shear Strength, GBMS (N/mm²)	Temperature Resistance (°C)	
HIGH PERFORMANCE									
LOCTITE EA 3421	50 ml	Universal adhesive with long working time	Clear amber-yellow	37.000	1:1	240	22	120	
LOCTITE EA 3423	50 ml, 200 ml	Universal adhesive, excellent for metals, good moisture resistance	Grey	300.000	1:1	180	17	120	
LOCTITE EA 9461	50 ml	High impact resistant, gap filling	Grey	72.000	1:1	240	25	120	
LOCTITE EA 9466	50 ml, 400 ml	High impact and peel resistance, excellent bond strength to a wide variety of plastics and metals	Off-White	35.000	2:1	180	37	120	
LOCTITE E-30CL	50 ml, 30 l	Ultra clear, impact and chemical resistance, low viscosity, high bond strength to variety of materials	Ultra Clear	10.000	2:1	180	21	120	
LOCTITE EA 9492	50 ml, 400 ml	High temperature and chemical resistance	White	30.000	2:1	75	20	180	
LOCTITE EA 9497	50 ml	High temperature, thermally conductive, room temperature cure	Grey	12.000	2:1	480	20	180	
FAST FIXTUR	E			1					
LOCTITE EA 3430	24 ml, 50 ml	Universal, fast curing	Ultra Clear	23.000	1:1	15	22	100	
LOCTITE EA 3450	25 ml	Fast curing, ideal for metal repairs	Grey	35.000	1:1	15	25	100	
LOCTITE EA 9450	50 ml	Fast curing, gap filling	Translucent	200.000	1:1	13	23	100	
ONE PART/H	EAT CURE								
LOCTITE E-214HP	1 kg	Non-sag, heat-cured, structural epoxy adhesive. Tough, high strength and peel resistance, high impact strength	Light grey paste	Thixotropic	N/A	N/A	33	150	

#### **POLYURETHANES** Pot Life / Working Time (min.) Cure Time @ RT Pack Size Colour Paintable? Sandable? MicroEmission™? Product Features (h) Solvent-free, multi-purpose bonder for metals, plastics, wood, painted surfaces TEROSON PU 6700 50 ml, 310 ml, 400 ml Grey 10 Yes Yes No TEROSON PU 6700 ME Solvent-free, multi-purpose bonder for metals, plastics, wood, painted surfaces 60 ml, 400 ml Grey Yes Yes Yes Fast curing repair adhesive, in combination with plastics the use of an approved Henkel primer is absolutely necessary TEROSON PU 9225 SF 50 ml Dark Grey 2 1,5 Yes Yes No TEROSON PU 9225 SF ME Fast curing repair adhesive, in combination with plastics the use of an approved Henkel primer is absolutely necessary Dark Grey 50 ml 2 1,5 Yes Yes Yes

70 **LOCTITE** PRODUCT CATALOGUE STRUCTURAL ADHESIVES



# **A Long-Lasting Alternative to Welding**



"LOCTITE helped us find a solution to constant spot weld failures that were costing us equipment downtime and repair costs."

A paper recycler's stainless steel filter screens failed regularly in service every 6 to 8 weeks - due to the erosion of spot welds that caused the mesh to fall into the rotating screen system. The frequent replacement required by these failures caused equipment downtime and labour costs. LOCTITE EA 9466, a structural adhesive that is resistant to peel and shear forces, was the perfect solution.

A LOCTITE Engineering Solutions Expert walked the team through the process, from ground washing the screen mesh and filter to remove any paper recycling debris and chemical residues, to dispensing from a 50 ml dual cartridge, to positioning and weighting the replacement mesh. The new process has lowered filter replacement costs, labour repair costs and doubled uptime between process downtime, thereby increasing recycling production output.

### **BENEFITS**

### **LOCTITE EA 9466 Structural Adhesive:**

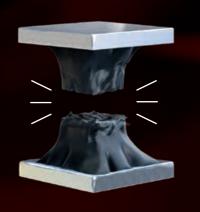
- Provides the needed durability to withstand the abrasive forces in the filter process
- Replaces spot welds and holds the fine filter mesh in place for more than
- Offers cost savings by reducing equipment down time and labour costs

PRODUCT CATALOGUE STRUCTURAL ADHESIVES

# FLEXIBLE ADHESIVES SEALANTS

Varied substrates. High elongation.

For joints with high movement.





### **PROBLEM**

SOLUTION

With rigid adhesives: Joints may fail under dynamic stresses. With flexible adhesives: Joints tolerate movements.

- 74 **LOCTITE**。 PRODUCT CATALOGUE

# Bonding and sealing for dynamic loads.

Flexible adhesives and sealants are ideal for applications that are subjected to dynamic forces and require durable adhesion to a variety of substrates. They fill large gaps and once cured, their resilient properties provide UV-resistant, waterproof seals and strong bonds that withstand high tensile and impact forces, as well as cold and hot temperature cycles, where substrates expand and contract at different rates.





### **TEROSON MS 939**

### **Primerless, Multi-Purpose Adhesive**

TEROSON MS 939 is an industrial elastomeric bonding adhesive that offers high versatility. It demonstrates both high strength and good elasticity. It meets the damp heat test for the solar industry and the UL listing for electrical equipment. It has excellent weathering resistance.

### **Benefits:**

- Free of solvents, isocyanates, silicones and PVC
- · Allows accelerated curing as 2K material



### Paintability:



Temperature resistance:



Cure speed:

24 h

### How to choose a flexible adhesive or sealant.

### **BONDING VS. SEALING**

While all of the flexible adhesives and sealants provide both a bond and a seal, some are formulated with higher tensile strengths which make them better suited for bonding applications. Alternatively, others are developed with higher elongation properties, which make them ideally suited for sealing applications.



### **PAINTABILITY**

SMP\*-based adhesives and sealants are paintable after application (skin formation), while silicone-based adhesives and sealants are not compatible with paint.



**TEMPERATURE** 

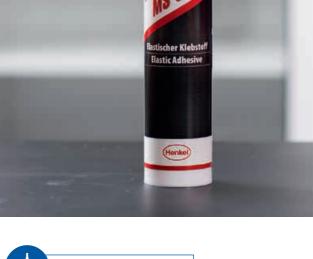
The operating temperature requirements of your end device may have an impact on which flexible adhesive and sealant is best suited for your application.



**CURE SPEED** 

2K flexible adhesive and sealants provide fast cure times, while 1K products rely on ambient moisture and require longer times to cure.





TEROSON



# **TEROSON MS 930**

### **Primerless Sealant/Adhesive**

TEROSON MS 930 is a moisture-cured, thixotropic silane modified polymer sealant/adhesive. Suitable for various applications involving a wide range of substrate materials. It forms a soft elastic product and provides excellent UV and weathering resistance. It complies with UL QMFZ2 for electrical safety.

- Free of solvents, isocyanates, silicones and PVC
- · Allows accelerated curing as 2K material



### Paintability:



**Temperature resistance:** 



Cure speed:

LOCTITE.

<sup>\*</sup> Silane Modified Polymer

# Find the right product for your application



**Flexible Adhesives** 

**TEROSON MS 939 TEROSON MS 9399** 

### **Flexible Sealants**

**TEROSON MS 930 TEROSON MS 9360 LOCTITE SI 5366 LOCTITE SI 5368** 

### **PLEASE CONTACT YOUR** HENKEL REPRESENTATIVE FOR MORE INFORMATION

on the full range of Flexible Adhesives and Sealants

## **Flexible Adhesives**



**TEROSON** MS 939\* 1K Silane Modified Polymer

Temperature resistance: 100 °C

Cure speed: 24 h

Skin over time: 5 min.

Colour: Black, white, grey Cure method: Moisture

Tensile strength: 3 N/mm<sup>2</sup>



**TEROSON** MS 9399\* 2K Silane Modified Polymer



Paintability: Yes



Temperature resistance: 100 °C



Cure speed: 3 h

Skin over time: 25 min. Colour: Black, white, grey Cure method: 2K mix

# **Equipment**



LOCTITE 300 ml Manual Cartridge Dispenser IDH 142240

Dispenser for adhesives and sealants in 290 ml, 300 ml and 310 ml plastic and aluminium cartridges.



**LOCTITE 97002** 300 ml Pneumatic Cartridge Dispenser

It is a pneumatic dispenser for applying products from 300 ml cartridges. Pneumatic pressurisation minimises operator fatigue. Flow rate is controlled via the integrated pressure regulator. The operator controls the amount by holding down the trigger.

### **ADDITIONAL EQUIPMENT**

400 ml

**LOCTITE EQ HD14** 400 ml Dual Cartridge Dispenser

1:1, 2:1, 4:1, 10:1 Manual: IDH 2693823 Pneumatic: IDH 2693825

Please refer to page 128 for additional equipment/information.

### **Flexible Sealants**



**TEROSON MS 9360** 1K Silane Modified Polymer



**TEROSON //S 930\*** Silane Modified Polymer

Temperature resistance: 80 °C



LOCTITE **SI 5366** 



LOCTITE SI 5368



Paintability: No



Temperature resistance: 200 °C



Temperature resistance: 200 °C



Cure speed: 24 h

Paintability: No

Cure method: Moisture

2	T
	N
	1K

Paintability: Yes



Cure speed: 24 h

Skin over time: 5 min. Cure method: Moisture Tensile strength: 3,5 N/mm<sup>2</sup>

Tensile strength: 1 N/mm<sup>2</sup>

Skin over time: 25 min.

Colour: Black, white, grey Cure method: Moisture

Paintability: Yes

Cure speed: 24 h

Skin over time: 5 min. Cure method: Moisture Tensile strength: 2 N/mm<sup>2</sup>

Cure speed: 24 h

Skin over time: 5 min. Colour: Black Tensile strength: 2 N/mm<sup>2</sup>

FLEXIB	LE ADI	HESIVES								
Product	Pack Size	Colour	Features	Extrusion Rate (g/min)	Technology	Skin Over Time (min.)	Temperature Range (°C)	Shore Hardness	Tensile Strength (N/mm²)	Elongation at Break (%)
TEROSON MS 939	290 ml	Black, white, grey	Primerless, good UV/weather resistance, paintable, solvent/isocyanate-free	N/A	Silane Modified Polymer	5	-40 to +100	A 55	3	250
TEROSON MS 9399	400 ml	Part A: Black, white, grey; Part B: Black, white, grey	2K, non-sag, high tack, fast set time	N/A	Silane Modified Polymer	25	-40 to +100	A 55	3	150

FLEXIB	LE SEA	LANTS								
TEROSON MS 930	310 ml	Black, white, grey	Primerless, good UV/weather resistance, paintable, solvent/isocyanate-free	300	Silicone	25	-50 to +80	A 30	1	250
TEROSON MS 9360	310 ml, 570 ml	Black	Free of solvents, isocyanates, silicones and PVC. The product is odorless and demonstrates good adhesion to many substrates. It is compatible with suitable paint systems.	N/A	Silane Modified Polymer	4 - 10	-40 to +100	A 60	3,5	200
LOCTITE SI 5366	310 ml	Clear	Good resistance to extreme thermal and UV cycling without hardening, shrinking or cracking	40	Silicone	5	-50 to +200	A 25	2	530
LOCTITE SI 5368	310 ml	Black	Good resistance to extreme thermal and UV cycling without hardening, shrinking or cracking	100	Silicone	5	-50 to +200	A 25	2	435

 $<sup>\</sup>ensuremath{^{\star}}$  To improve adhesion of TEROSON MS products on difficult-to-bond materials, we recommend cleaner/adhesion promoter TEROSON SB 450 or Corona/Plasma treatment.



# **A Single Flexible Option** to Replace Other Elevator **Joint Methods**



"TEROSON MS 930 reduced our elevator door production time and cost, while improving product quality."

Manufacturers of elevators and elevator components have discovered that **Teroson MS 930** Flexible Adhesive allows them to replace everything from other adhesives to welded connections with a single solution that performs better and is faster, easier and safer to apply.

A LOCTITE Engineering Solutions Expert helped one elevator door manufacturer replace spot welding operations for internal door supports with **Teroson MS 930** to improve product quality and simplify the assembly process. Another manufacturer designing a new elevator door jamb learned how to use **Teroson MS 930** to replace a competitor's adhesive tape that required a flammable solvent primer to apply, resulting in improved plant safety and increased production output. Both manufacturers substantially reduced materials cost as well.

### **BENEFITS**

### **Teroson MS 930 Flexible Adhesive:**

- Disperses joint load distribution over the entire flange versus spot weld contact points
- Reduces plant power consumption compared to welding
- Does not deform the metal surface and eliminates refinishing required after welding operations
- Improves plant safety by eliminating flammable solvent primer
- · Increases production output by up to 90 % with faster dispensing speed and
- Provides material cost savings of as much as 27 % compared to adhesive

FLEXIBLE ADHESIVES AND SEALANTS

PRODUCT CATALOGUE



# Excellent bonding.

# Fast processing.

Light cure adhesives are ideal for applications requiring fast production speeds and are commonly used in the assembly of glassware, loudspeakers, optical instruments, electrical components, and disposable medical devices. To help select the best product for your application, key considerations include the ability of the assembled parts to transmit the UV/visible light to the bond line, whether a rigid or flexible bond line is required, and the types of substrates being bonded.

# How to choose a light cure adhesive.



### LIGHT TRANSPARENT SUBSTRATE VS. OPAQUE

Use visible light cure adhesives for UV-stabilised, transparent substrates. For opaque substrates, dual cure adhesives expand the benefits of light cure technology to non-transparent substrates and other application areas.



### BOND TYPE

### **FLEXIBLE**

Highly flexible bonds that offer high thermal cycle resistance and are suitable for elastic bonding, sealing and leak-proofing.

### RIGID

High-strength adhesives that cure quickly and provide tough bond lines that are suitable for bonding rigid plastics and metals.



SUBSTRATE

Many light cure adhesives are specially formulated to provide optimum performance on specific substrates, so the adhesive is best suited for the intended application.



**LOCTITE** PRODUCT CATALOGUE LIGHT CURE ADHESIVES

# Find the right product for your application



**Transparent Substrates** 

**LOCTITE AA 3951 LOCTITE AA 3953** 

**Opaque Substrates** 

**LOCTITE AA 352 LOCTITE AA 3504** 

# **Transparent Substrates**



LOCTITE **AA 3951** Ultra Fast, Plastic Bonding,



LOCTITE **AA 3953** Ultra Fast, Plastic Bonding, Medium Viscosity



Bond type: Flexible



Bond type: Flexible



**Substrate:** Plasticised PVC, TPEs, thermoset rubbers, polycarbonate, ABS, acrylic, HDPE, PP



**Substrate:** Plasticised PVC, TPEs, thermoset rubbers, polycarbonate, ABS, acrylic, HDPE, PP

Chemistry: Acrylic Viscosity: 150 mPa·s Compliant with ISO 10993: Yes Fluorescence: Yes Colour: Transparent, colourless to straw Chemistry: Acrylic Viscosity: 550 mPa·s Compliant with ISO 10993: Yes Fluorescence: Yes Colour: Transparent, colourless to straw

# **Opaque Substrates**



LOCTITE **AA 352** 



LOCTITE **AA 3504** Magnet Bonding





Bond type: Rigid



Substrate: Metal, glass



Substrate: Metals, magnets

Chemistry: Acrylic Viscosity: 20.500 mPa·s Compliant with ISO 10993: No Fluorescence: No Colour: Clear/light amber Chemistry: Acrylic Viscosity: 1.000 mPa·s Compliant with ISO 10993: No Fluorescence: No



LOCTITE.

### **Equipment**

Dispensing



### **LOCTITE 98815** Manual Syringe Dispenser 30 ml

IDH 1544934

A hand-held, manually operated dispenser, for any product packaged in a standard 30 ml syringe. This dispenser provides a convenient, cost-effective method to apply product.



### **LOCTITE 97006**

Digital Syringe Dispenser IDH 88633

A semi-automatic dispensing system designed to dispense LOCTITE adhesives and fluids packaged in 3, 5, 10, 30, 55 syringes and 300 ml cartridges. The unit has digital timing control with decimal settings to 0,001 seconds for increased precision over typical pressure-time systems. An adjustable pressure regulator controls a pulse of air, and when used in conjunctions with an air line adapter attached to an adhesive syringe barrel, will provide a controlled dispensed amount of adhesive.

# **Equipment**

Curing



# **LOCTITE EQ CL32**

A high powered, portable LED light source that offers a high level of flexibility for all UV or visible light curing needs. The light weight, compact design helps minimise operator fatigue, while its small size and long focus length make it perfect for applications in crowded areas and hard to reach bond

EQ CL32 405 nm LED Spot IDH 2182207

EQ CL32 365 nm LED Spot IDH 2182210



### **LOCTITE EQ CL25** LED Spot System

It is the universal controller that can be interfaced with up to four individual LED curing heads. The accessories come in many options including different lens, length of cables and 365 nm or 405 nm LED heads. The accessories are to be ordered separately.

Controller

IDH 1786127

EQ CL25 405 nm LED Head IDH 2104788

EQ CL25 365 nm LED Head IDH 1984957

### **ADDITIONAL EQUIPMENT**

**LOCTITE 97009 Semi Automatic Dispensing** System HP (High Pressure)

IDH 215845

**LOCTITE 97113 Stationary Applicator Valve** 

IDH 88644

**LOCTITE 98009 Light Cure Diaphragm Dispense Valve** 

IDH 218280

**LOCTITE EQ VA20 Volumetric Valve** 

IDH 2084141

### **ADDITIONAL EQUIPMENT**

### **LOCTITE EQ CL30 LED Flood System**

**EQ CL30 Single Flood Controller** IDH 1359255

**EQ CL30 Quad Flood Controller** IDH 2257357

EQ CL30 LED Flood Head 365 nm IDH 2139182

EQ CL30 LED Flood Head 405 nm IDH 2139180

# Product TRANSPARENT SUBSTRATES LOCTITE AA 3951 LOCTITE AA 3953 OPAQUE SUBSTRATES - ABILITY TO CURE IN AREAS SHADOWED FROM LIGHT LOCTITE LOCTITE

LIGHT CURE ADHESIVES

**Pack Size** 

25 ml, 1 l

25 ml, 1 l

250 ml. 1 l

250 ml

Appearance

Transparent, colourless to

straw coloured liquid

Transparent, colourless to

straw coloured liquid

Transparent

light amber liquid

Amber liquid

Cure Type

Ultraviolet (UV)/visible light

Ultraviolet (UV)/visible light

(Ultraviolet (UV) light

& activator cure)

Dual Cure

(Ultraviolet (UV) light & anaerobic cure)

**Key Substrates** 

Plasticised PVC, TPEs,

thermoset rubbers, polycarbonate, ABS, acrylic,

HDPE, PP

Plasticised PVC, TPEs,

thermoset rubbers,

polycarbonate, ABS, acrylic, HDPE, PP

Metal, glass

Metals, magnets

**Block Shear** 

Strength, PC (N/mm²)

22

22

8\*

N/A

Hardness

D 62

D 56

D 60

D 45

Range (°C)

-55 to +100

-55 to +100

-55 to +150

-55 to +150

(mPa•s)

150

550

20.500

1.000

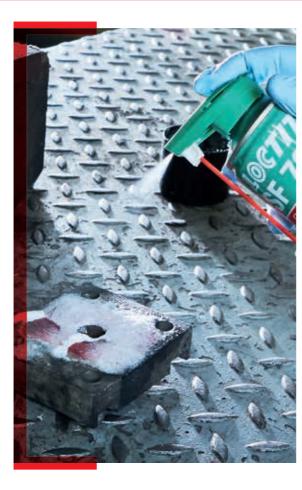
<sup>\*</sup> PC to glass

Please refer to page 128 for additional equipment/information.



# Clean parts, hands and mechanical equipment

LOCTITE cleaners and degreasers provide highly effective waterand solvent-based cleaning of components, worktops, floors, parts and hands. The major factors to consider are drying time, residue, odour and substrate compatibility.



# How to choose the right cleaner.

### **DEGREASING/PARTS CLEANING**

For removing dirt, resins, metal filings, lacquer, oils and greases from components.

### HAND CLEANING

Available with and without abrasives for removing dirt, grease, grime, oil and adhesives from hands.

BEST SELLER

## **LOCTITE SF 7070**

### **General Purpose Parts Cleaner**

Solvent-based (non-CFC) parts cleaner and degreaser formulated specifically to prepare plastic components ready for bonding with adhesives. Suitable for metals, too. Can be used as a spray, wipe or in immersion cleaning at room temperature, the product is able to remove most oils, greases, lubrication fluids, metal cuttings and fines from plastic parts without the risk of stress cracks.

### **Benefits:**

- Solvent-based general parts cleaner
- Designed for use on plastic components
- · Can be applied by spray or immersion
- No risk of stress cracks





BEST SELLER

# **LOCTITE SF 790**

### Parts Cleaner, Gasket Remover

Grey to off-white methylene chloride liquid solvent in an aerosol spray, designed to remove baked-on chemical gaskets, gasket cements and conventional gasket materials from metal parts. It removes also silicone gaskets, carbon deposites and many kinds of paints and varnishes without damaging of metal surface. Its aerosol spray form enables spray application on to intricate shapes with maximum penetration.

### Benefits

- Removes different coatings without need of extensive mechanical scraping
- Aerosol spray form enables application with maximum penetration
- The product will not run off, even on vertical surfaces

**LOCTITE** PRODUCT CATALOGUE CLEANERS

# Find the right product for your application



### **Degreasers & Parts Cleaners**

LOCTITE SF 7070 LOCTITE SF 790 LOCTITE SF 7840

Hand Cleaners
LOCTITE SF 7850

# PLEASE CONTACT YOUR HENKEL REPRESENTATIVE FOR MORE INFORMATION

on the full range of cleaning products.

# **Degreasers & Parts Cleaners**



LOCTITE SF 7070 Parts Cleaner



LOCTITE SF 790
Gasket Remover

General purpose parts cleaner and degreaser formulated specifically to prepare plastic components ready for bonding with adhesives.

Suitable for metals, too.

General purpose aerosol spray designed to remove baked-on chemical gaskets, gasket cements, coatings, deposits and conventional gasket materials from metal surfaces. It works with minimal scraping.



LOCTITE SF 7840 Water-based

Concentrated, general purpose, biodegradable parts cleaner and degreaser. Solvent-free, non-toxic and non-flammable. Can be diluted with water.

### **Hand Cleaners**



LOCTITE SF 7850 No-Rinse

A general purpose, natural hand cleaner containing no petroleum solvents. It cleans with or without water and can remove ground-in dirt, grease, grime, inks, oils, paint and glues.

CLEANE	RS						
Product	Pack Size	Application Area	Speciality	Odour			
DEGREASERS							
LOCTITE SF 7070	400 ml, 10 l, 200 l	Parts cleaning prior to bond	Fast evaporation – residue-free	Solvent			
LOCTITE SF 7840	750 ml, 5 l, 20 l, 200 l	General parts, machine and workshop cleaner	Biodegradable	Pleasantly fresh			
PARTS CLEAN	ER						
LOCTITE SF 790	400 ml	Gasket remover	Strong foam-like layer to remove cured gaskets	Solvent			
HAND CLEAN	HAND CLEANER						
LOCTITE SF 7850	400 ml, 3 l, 10 l	Hand cleaner with natural abrasives	Contain premium skin conditioner like aloe vera, lanolin and jojoba	Fresh citrus			





# Protect. Repair. **Rebuild.**

Wear prevention solutions provide a sacrificial coating on new or worn surfaces, to provide wear and impact resistance and extend the life of parts. LOCTITE offers a range of wear prevention solutions for a range of applications.





## **LOCTITE PC 7218**

### **General Purpose**

LOCTITE PC 7218 is a 2K, grey, ceramic-filled, trowelable, epoxy-based surface coating designed to protect parts from coarse particle abrasion or erosion on metals (with or without chemical attack). It is designed for parts such as cyclones/separator bodies, dust collectors/exhausters, pump liners/impellers, fan blades and housings, chutes/hoppers and elbows and transition points.

### Benefits:

- · Suitable for chemical attack applications
- Applied by trowel
- Renews worn surfaces fast



# How to choose the right wear prevention.



PARTICLE ABRASION



FLUID EROSION



CHEMICAL ATTACK

Trowelable, brushable and sprayable solutions Coatings to for fighting abrasion from particles ranging fluids on confrom small to large.

Coatings to combat the fine particles found in fluids on components such as a pump.

Advanced epoxy products to protect equipment from extreme chemical attack and corrosion.

### **Surface Preparation**

Correct surface preparation is crucial for the successful application of both, metal repair products and protective coatings and compounds. Good surface preparation will:

- Improve adhesion to parts
- Prevent corrosion between the surface and product used
- Extend maintenance intervals

The two main important factors for a successful application are **surface profile** and **surface cleanliness.** 





# **LOCTITE PC 7226**

### Fine Particle

LOCTITE PC 7226 is a 2K, grey, carbide-filled, trowelable, non-sagging, epoxy-based surface coating designed to protect metal parts from fine particle abrasion or erosion (with or without chemical attack). It is suitable for overhead and vertical applications. Typical applications include dredge pump liners, flumes and troughs, pump impellers, vibrating feeders and chutes/hoppers.

### **Benefits:**

Prolongs equipment life

**LOCTITE** PRODUCT CATALOGUE WEAR PREVENTION

# Find the right product for your application



### **Particle Abrasion**

**LOCTITE PC 7218 LOCTITE PC 7222 LOCTITE PC 7226** 

### **Fluid Erosion**

**LOCTITE PC 7227 LOCTITE PC 7255** 

**High Temperature Resistance LOCTITE PC 7234** 

### **Particle Abrasion**



Working life: 30 min.

Temperature (max): 120 °C Colour: Thick grey paste

Drying time: 7 h

LOCTITE **PC 7218** 



LOCTITE **PC 7222** 

Working life: 30 min. Drying time: 8 h Temperature (max): 105 °C Colour: Grey paste



LOCTITE **PC 7226** Fine Particles

Drying time: 6 h Temperature (max): 120 °C

### **Fluid Erosion**



LOCTITE **PC 7227** 



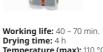
LOCTITE **PC 7255** 

Drying time: 4 h



Working life: 34 – 48 min. Drying time: 4 h Temperature (max): 100 °C

Colour: Grev



Temperature (max): 110 °C Colour: Brilliant green or grey

# **PLEASE CONTACT YOUR**

**HENKEL REPRESENTATIVE** FOR MORE INFORMATION

on the full range of wear prevention products.

# **High Temperature Resistance**



LOCTITE **PC 7234** 

Working life: 40 min Drying time: 2,5 h Temperature (max): 200 °C Colour: Red

### **WEAR PREVENTION** Compressive **Functional Working Time** Operating Hardness Mix Ratio Mix Ratio Cure (h) 25 °C Product Pack Size Coverage Colour Strength Shore D (min.) (N/mm<sup>2</sup>) (°C) PARTICLE ABRASION 720 cm<sup>2</sup> @ 6 mm thick per 1 kg kit 1 kg, 10 kg Thick grey paste 120 110 90 30 2:1 0,13 m<sup>2</sup> @ 6 mm thick per 1,36 kg kit LOCTITE PC 7222 30 2:1 2:1 Grey paste LOCTITE 800 cm<sup>2</sup> @ 6 mm 120 103 4:1 1 kg Grey 85 30 4:1 thick per 1 kg kit FLUID EROSION LOCTITE 34 - 48 2,75:1 4,8:1 100 86 85 1 kg Grey thick per 1 kg 2,2 m<sup>2</sup> @ 0,5 mm LOCTITE PC 7255 Brilliant green 1,125 l thick per cartridge of 1,125 I 110 106 40 - 70 100:50 100:50 or grey HIGH TEMPERATURE RESISTANCE 8 h @ 20 °C + 3 h @ 150 °C 1,1 m<sup>2</sup> @ 0,5 mm LOCTITE 4,25:1 1 kg Red 200 102 88 40 2.6:1

## **Equipment**

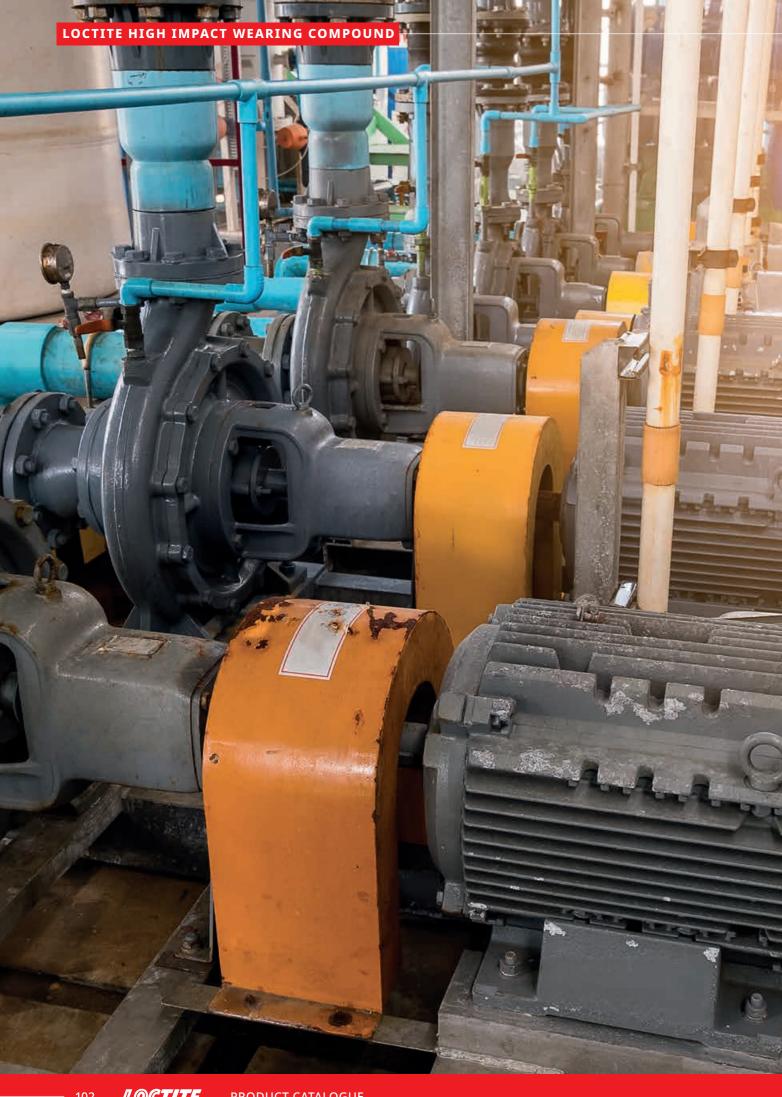


**LOCTITE EQ HD12 PNEUMATIC SPRAY DISPENSER** 

IDH 2251591

It is suitable for spraying LOCTITE PC 7255 and is designed for 2:1 mix ratio. Corresponding spray nozzle: IDH 2447734

# LOCTITE SERVICES PROTECT COMPONENTS AND **EXTEND OPERATIONAL LIFE.** services.loctite.us



# **Coating against** fluid erosion.



"Thanks to a LOCTITE Engineering Solutions Expert, reliability and performance has been improved."

An industrial pump repair shop needed to improve reliability and performance for a customer's municipal wastewater pumps, which were failing prematurely due to erosion and abrasion. During an on-site consultation, a LOCTITE Technical Sales Engineer suggested **LOCTITE EA 3478 Superior Metal** and LOCTITE PC 7255 Sprayable **Ceramic** to repair damage and protect the wetted components against the harsh conditions.

The LOCTITE Technical Sales Engineer guided the team on how to properly prepare the surface, to ensure maximum adhesion and longevity. To fill large gaps in the pump caused by abrasion and erosion, **LOCTITE** EA 3478 Superior Metal was used to rebuild the pump geometry, followed by the application of **LOCTITE** PC 7255 Sprayable Ceramic to coat and protect all wetted components in

for more reliable operation and

maintenance schedules.

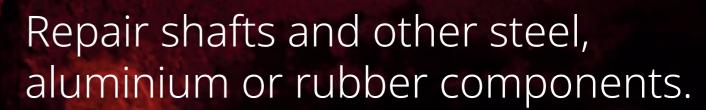
# the pump. Once back in service, the pump's mean time between failures was greatly increased, allowing

### **BENEFITS**

**LOCTITE EA 3478 Superior Metal and** LOCTITE PC 7255 Sprayable Ceramic

- Fills large gaps caused by abrasion
- Coats and protects wetted components
- Increases mean time between failure
- · Allows for more regular operation and maintenance schedules

LOCTITE **PRODUCT CATALOGUE WEAR PREVENTION** 



# For longer life and better chemical resistance.

# REBUILDING





### **PROBLEM**

# SOLUTION

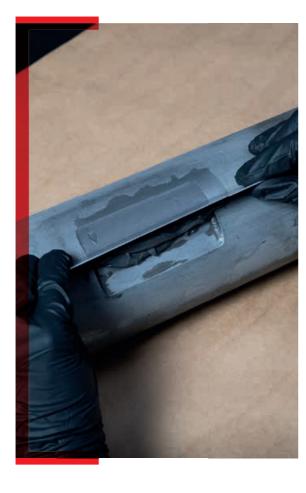
### Without rebuilding: Damaged components reduce process efficiency, add excess stress to equipment, increase safety hazards and most importantly, add costs.

### With rebuilding: Equipment is repaired quickly on-site, component integrity and seals are restored, process efficiencies are enhanced, and costs are minimised through part and component salvage.

**PRODUCT CATALOGUE** 

# Rebuilding damaged parts.

Rebuilding solutions can be used to repair rubber, steel, aluminium and other metal components. Metal rebuilding solutions offer high compressive strength and can be machined, drilled or tapped after cure. Rubber repair solutions offer excellent abrasion resistance and outstanding adhesion to metal and rubber.





# **LOCTITE EA 3478**

### **High Performance**

LOCTITE EA 3478 is a 2K, ferro-silicon filled epoxy resin system. It is extremely resistant to corrosion, chemical attack and abrasion. Helps to restore tolerances to worn shafts, repairing worn keyways and damaged housings, filling pitted surfaces in worn machinery and restoring fit to bearing housings.



Working time:

20 min

Functional cure speed:

/ 6 h

# EA 3478 B EPOXY ADHESIVE BY STANDARD WITH THE REAL STATE OF THE STANDARD BY S

# How to choose a rebuilding product.

Choose a rebuild product based on substrate type and form of solution desired. LOCTITE offers a range of rebuilding solutions from kneadable to flowable.



**DAMAGED METAL PART** 

LOCTITE

PRODUCT CATALOGUE



DAMAGED RUBBER PART

Trowelable or kneadable solutions for repairing, restoring or rebuilding damaged metal machinery, equipment and parts without the need for heat or welding.

Durable, tough and flexible repairs of conveyor belts and other damaged rubber equipment and parts, quickly and easily.





## **LOCTITE PC 7352**

### **Rubber Repair**

LOCTITE PC 7352 is a premium rubber repair compound designed for conveyors and other rubber parts. It offers excellent abrasion resistance and outstanding adhesion to metal and rubber.

### Benefits

- Trowelable paste, provides a flexible abrasion resistance
- Fills gaps between rubber liners, at corners or any other difficult-to-reach areas
- Works in vertical and overhead positions



Working time: 4 min.



Functional cure speed:

**REBUILDING** 

# Find the right product for your application



**Damaged Metal Parts** 

LOCTITE EA 3463 LOCTITE EA 3478

Damaged Rubber Parts
LOCTITE PC 7352

# PLEASE CONTACT YOUR HENKEL REPRESENTATIVE FOR MORE INFORMATION

on the full range of rebuilding products.

# **Damaged Metal Parts**



LOCTITE EA 3463



Working time: 20 min.

Cure speed: 6 h

LOCTITE EA 3478 High Performance

Working time: 3 min.

Cu

Cure speed: 10 min.

Substrate: Metal Form: Kneadable putty

Substrate: Metal Form: Trowelable

# **Damaged Rubber Parts**



LOCTITE PC 7352 Rubber Repair



Working time: 4 min.

Substrate: Rubber Form: Pasty

Cure speed: 2 h

# **Equipment**

### **DISPENSERS**

**Pneumatic** 

Manual





LOCTITE EQ HD14 400 ml Dual Cartridge Pneumatic Dispenser 1:1 - 10:1 IDH 2693825 LOCTITE EQ HD14 400 ml Dual Cartridge Manual Dispenser 1:1 - 10:1 IDH 2693823

Please refer to page 128 for additional equipment/information.

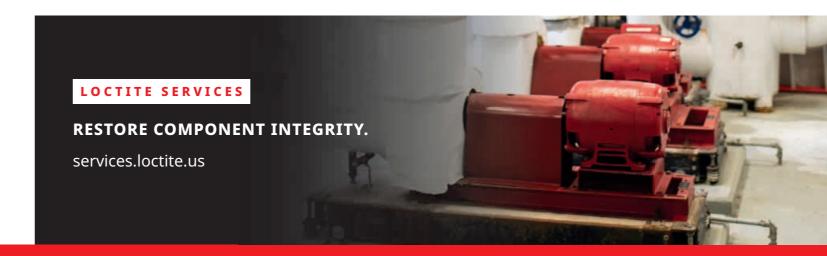
Suitable nozzle:

TEROSON ET QUAD STATMIX BIG10PC

IDH 780805

RUBBE	R & BEL	T REPAIR						
Product	Pack Size	Coverage Per Kit	Colour	Tensile Strength (N/mm²)	Elongation (%)	Hardness Shore A	Working Time (min.)	Functional Cure (h), 25 °C
RUBBER REPA	RUBBER REPAIR							
LOCTITE PC 7352	400 ml	650 cm² for 6 mm thickness	Mixed: Black	15	850	70	4	2

REBUIL	D EPOX	IES						
Product	Pack Size	Coverage Per Kit	Colour	Compressive Strength (N/mm²)	Tensile Strength (N/mm²)	Hardness Shore D	Working Time (min.)	Functional Cure, 25 °C
<b>STICK</b>								
LOCTITE EA 3463	114 g	45 cm² for 6 mm thickness	Metallic black	50	18	≥70	3	10 min.
TROWELABLE								
LOCTITE EA 3478	453 g	232 cm <sup>2</sup> for 6 mm thickness	Grey putty	125	38	86	20	6 h





# Restoring Worn Metal to its Near-Original Dimensions.



"We went from replacing 2 impellers a year to almost never replacing impellers, thanks to LOCTITE."

A water treatment plant with 25 mixer impellers was searching for a way to avoid the high cost of OEM replacement parts. The plant was replacing at least 2 impellers each year at a cost of \$6.000 per unit, plus the cost of renting a crane to remove the impellers. They had tried competitive wear resistant coatings previously, but they failed after only a few months of use. **LOCTITE EA 3478** and **LOCTITE** PC 7227 were an ideal solution for restoring the impellers. The impellers were removed from service and grit blasted to leave a bare metal surface.

A LOCTITE Engineering Solutions
Expert showed the team how to
first clean with LOCTITE SF 7063 to
remove any oil or grease residues
and apply LOCTITE EA 3478 to
restore eroded surfaces to a
near-original surface dimension,
grinding the cured product as
needed to optimise impeller
efficiency. Finally, a primary coat
of LOCTITE PC 7227 was applied.
The result: the plant has eliminated
almost all impeller replacement costs
while reducing downtime expenses
substantially.

### **BENEFITS**

### **LOCTITE EA 3478 Superior Metal:**

 Restores impeller original dimensions to improve pumping efficiency.

### **LOCTITE PC 7227 Brushable Ceramic:**

 Protects metal from abrasion to prolong impeller service life.

110 **LOCTITE** PRODUCT CATALOGUE REBUILDING 11



# LUBRICANTS





**PROBLEM** 

SOLUTION

Without lubricants: Moving parts can corrode and seize.

With lubricants:
Assemblies maintain performance longer.

- 112 **LOCTITE** PRODUCT CATALOGUE LUBRICANTS 11

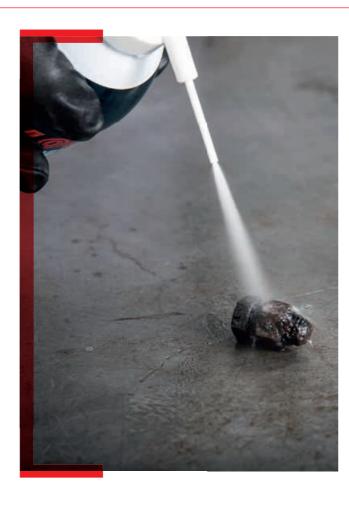
# Keep moving parts moving.

LOCTITE offers lubricants that can address and protect against friction and wear. Lubricants are also used to protect against corrosion by displacing moisture and leaving a continuous coating on the part.

> **PLEASE CONTACT YOUR HENKEL REPRESENTATIVE** FOR MORE INFORMATION

on the full range of lubricants.







## **LOCTITE LB 8040**

### Seized, Rusted Parts

LOCTITE LB 8040 is the solution for releasing seized or corroded parts. Instantly freezes seized and rusted parts (bolts, nuts, studs) down to -43 °C. The shock-freeze causes microscopic cracks in the layer of rust, allowing the lubricating ingredient to wick directly into the rust. Dismantles parts in 1 – 2 minutes.

- $\boldsymbol{\cdot}$  Wicks directly into the rust by capillary action
- Released parts remain lubricated and protected from corrosion



Temperature resistance:



### Base oil:

Mineral oils, silicone-free







# **LOCTITE LB 8201**

### Multi-Purpose, 5-Way Spray

LOCTITE LB 8201 is a penetrating oil which frees, lubricates, cleans, dries and prevents corrosion on machinery. It is used to free seized or corroded parts such as threaded fasteners, hinges and cylindrical joints. It provides light lubrication and displaces moisture from damp electrical devices to leave a protective anti-corrosive film.

### **Benefits:**

• Five-way spray: Frees assemblies, lubricates metal, cleans parts, displaces moisture, prevents corrosion



**Temperature resistance:** -20 to +120 °C



### Base oil:

Mineral oils, silicone-free



What considerations are important when choosing a lubricant?

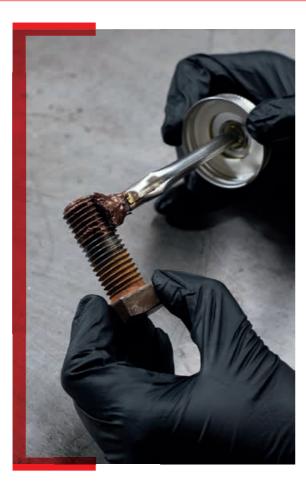
When choosing a lubricant, it is important to consider the intended application as well as the environmental conditions to which the assembly will be exposed. Environmental conditions are critical to the successful selection of the right lubricant product. Factors including high temperature, harsh chemicals and contaminants may have an adverse effect on the expected lubricant performance.

LOCTITE **PRODUCT CATALOGUE LUBRICANTS** 



# Keep assemblies from seizing.

Anti-seize lubricants are used in harsh environments to keep assemblies from seizing. They also protect against rust, corrosion and galling even in extreme temperature conditions. Temperature is a key consideration when choosing a LOCTITE anti-seize lubricant, along with substrate material and contamination restrictions.





# **LOCTITE LB 8008**

### Copper-based

LOCTITE LB 8008 is an anti-seize lubricant with an exclusive formula that suspends copper and graphite in a high quality grease. It protects metal parts from rust, corrosion, galling and seizing at temperatures to 980 °C.

### **Benefits:**

- Unique brush top
- NLGI grade of 0
- · Protects from rust, corrosion, galling and seizing



Temperature resistance:



Metal free:

**ANTI-SEIZE PRODUCTS** 

# How to choose the right anti-seize product.



**TEMPERATURE** 



METAL FREE

LOCTITE anti-seize lubricants are designed to protect your equipment from a wide range of temperatures, which allows for a wide range of applications. To choose the right anti-seize lubricant, choose the conditions in which your equipment operates, up to 1.315 °C.

LOCTITE metal-free formulations – a growing concern for all types of industries is the dispersal of "heavy" metals like lead, nickel, zinc and others, into the environment. Metal-free formulations offer the same performance as traditional products without heavy metals.

LOCTITE PRODUCT CATALOGUE



# Find the right product for your application



**General Purpose** 

**LOCTITE LB 8150 LOCTITE LB 8008** 

**High Performance LOCTITE LB 8009** 

> **PLEASE CONTACT YOUR HENKEL REPRESENTATIVE** FOR MORE INFORMATION

> > on the full range of anti-seize products.

# **General Purpose**





LOCTITE **LB 8008** 

Temperature resistance:



Temperature resistance: Up to 900  $^{\circ}\mathrm{C}$ 





Metal free: No



Solid lubricating agent: Copper/graphite

### ANTI-SEIZE PRODUCTS Temperature Resistance (°C) Metal-Free Pack Size Product Colour Specialty GENERAL PURPOSE LOCTITE LB 8150 500 g 900 No Extreme pressure (EP) additive LOCTITE LB 8008 453 g 980 No Copper C5-A Anti-Seize HIGH PERFORMANCE 453 g 1.315 Grey Heavy duty

# **High Performance**





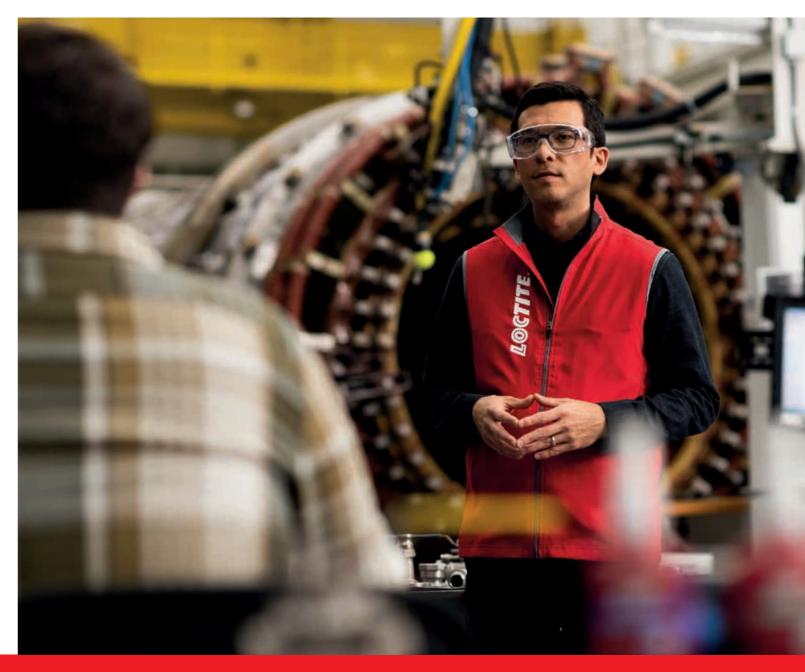


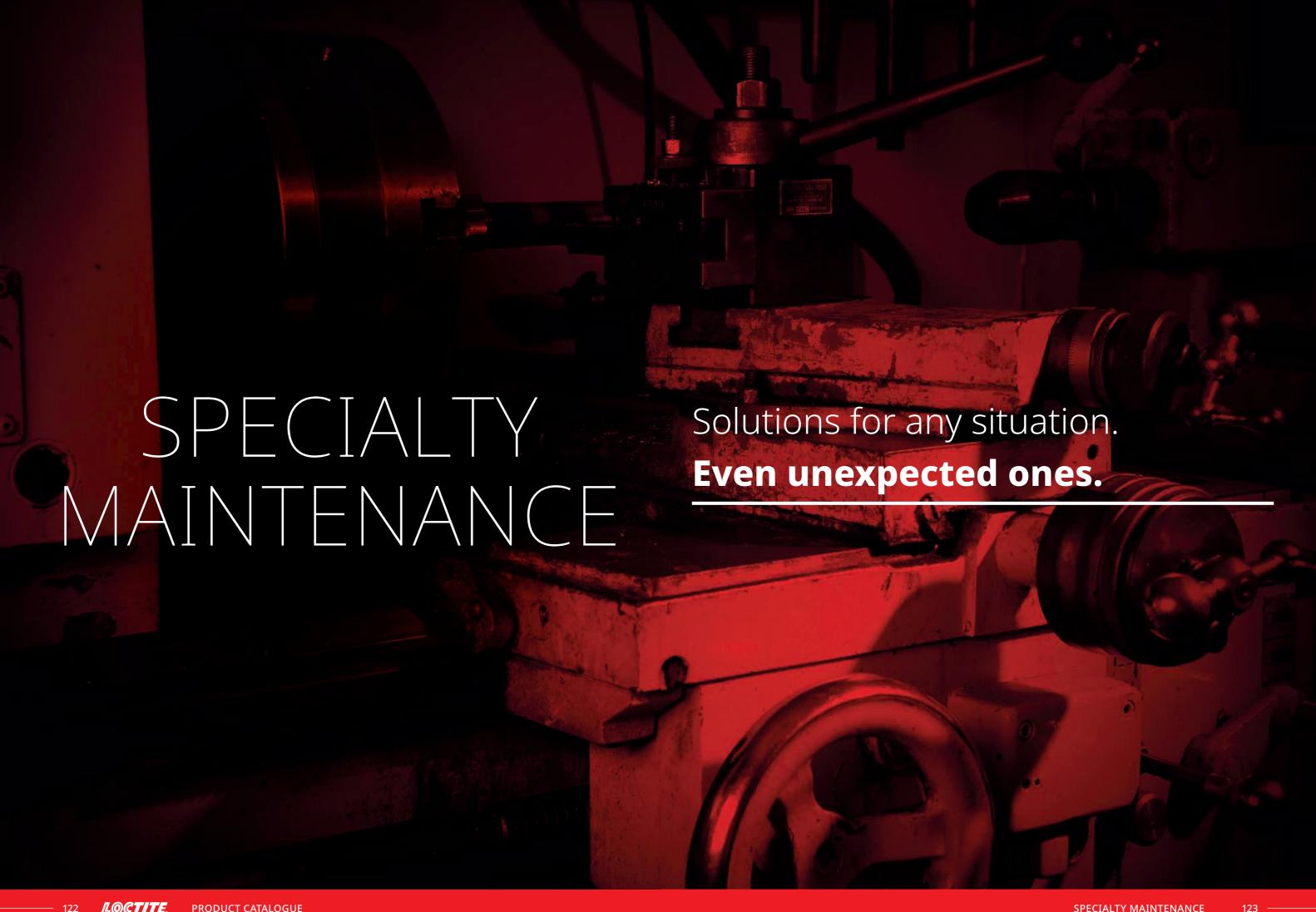
Temperature resistance:



Metal free: Yes

Colour: Grey Solid lubricating agent: Graphite/calcium fluoride





# For a wide range of specialised maintenance and repair scenarios.

With deep expertise in industrial maintenance and repair, LOCTITE has been able to develop a wide range of technologies suitable for solving nearly all situations.





# **LOCTITE SF 7900**

### **Welding Protection**

LOCTITE SF 7900 is a unique, silicone-free ceramic protective coating that prevents metal spatter from adhering to welding equipment. The coating forms a dry film that repels spatter and ensures uninterrupted welding for up to 8 hours without the need for re-application. It is suitable for manual MIG/MAG welding, laser and plasma cutting, or for protecting jigs, fixtures and fittings.

### **Benefits:**

- Excellent surface adhesion
- · Eliminates cleaning processes



### PIPE REPAIR

Easy-to-use urethane-impregnated fibreglass tape for temporary/medium-term repair of leaking pipes.

### **GROUTING & CONCRETE REPAIR**

Self-levelling, non-shrinking grouting that is stronger than concrete, and chemical and corrosion resistant.

### **RUST PREVENTION & CONVERSION**

Stabilises existing rust, guards against corrosion, prevents electrochemical corrosion and provides protection against flash rust.

### WELDING PROTECTION

Protects welding equipment against metal spatter for 8 hours without reapplication.

### **INSULATING & SEALING**

Self-fusing silicone wrap for electrical insulation and sealing applications even for pipes under pressure.

### **SPECIALTY REPAIR**

To meet tough, on-the-job requirements, these specialty repair products get the

LOCTITE PRODUCT CATALOGUE **SPECIALTY MAINTENANCE** 



# Find the right product for your application



Pipe Repair **LOCTITE PC 5070** 

**Concrete Repair LOCTITE PC 9410 MAGNA CRETE** 

**Insulating & Sealing LOCTITE SI 5075** 

**Welding Protection LOCTITE SF 7900** 

**Anti Slip Coatings LOCTITE PC 6315** 

**Rust Prevention & Conversion LOCTITE SF 7515** 

**Specialty Repair TEROSON VR 5080 LOCTITE O-RING KIT** 

### **Pipe Repair**



LOCTITE **PC 5070** 

An emergency repair product for sealing pipe leaks. Includes LOCTITE EA 3463 and urethane-impregnated fibreglass tape (activated by water) for the temporary repair of weak areas on metal, plastic and composite pipes. Cures in 30 minutes.

## **Anti Slip Coatings**



LOCTITE PC 6315

2-part, solvent-free epoxy which creates an extremely durable anti-slip coating that withstands heavy vehicular traffic on various types of surfaces.

It is a 2-part, solvent-free epoxy used on concrete, wood and metal surfaces in odor-sensitive areas, under typical dry service temperatures of -29 °C to +60 °C. Typical applications include heavy duty anti-slip finish where a solvent-free material is required.

### **Welding Protection**



LOCTITE **SF 7900** 

Innovative ceramic coating that protects welding equipment against metal spatter for 8 hours without re-application.
Minimises downtime, reducing cost and enhancing productivity.

### **Concrete Repair**



LOCTITE PC **9410 MAGNA** CRETE Magna-Crete Concrete Repair

Grey, 2-part, rapid setting, liquid magnesium phos-phate-based concrete repair and grouting system that outperforms conventional concrete repairs. This product is typically used wherever concrete is used in the construction and roads industries like runways, floors and bridges. Operating range of -50°C to 1100°C.

### **Insulating & Sealing**



LOCTITE **SI 5075** 

Innovative self-fusing silicone wrap, perfect for electrical insulation and sealing applications, even for pipes under pressure. It withstands extreme conditions such as salt water, fuel and acid fluids exposure.

### **Rust Prevention & Conversion**



LOCTITE SF 7515 Rust Prevention

Amber, water-based, liquid surface treatment that delivers 48-hour protection against flash rust on large surfaces. Straightforward spray and wipe application.

### **Specialty Repair**



**TEROSON VR 5080** 

A multi-purpose, high strenght adhesive tape for emergency repairs. Ideal for temporarily repairing, reinfortcing, fixing, sealing or protecting parts. It adheres to any dry, oil- and dust-free surface and is water resistant. It is suitable for indoor and outdoor applications with temperature resistance



LOCTITE O-Ring Kit - contains rubber cords and tools to create customized O-rings. LOCTITE 406 adhesive is sold separately due to refrigerated storage requirement. O-RING Kit is an emergency repair kit for making replacement O-rings on the spot. It is easy to handle and ready for use in just a few seconds. LOCTITE 406 creates a strong bond line as strong as the rubber itself. The kit contains five different sizes of nitrile rubber cord, a splicing jig and a safety knife. Add 20 g of LOCTITE 406 and you have all you need!

LOCTITE.

**SPECIALTY MAINTENANCE** 



**LOCTITE**, PRODUCT CATALOGUE EQUIPMENT 129

Product Name	Product Image	Description	Application	Benefits
LOCTITE 97130 Ergoloc Valve (IDH 444643)	A Part of the second se	It is a pneumatically operated handheld dispense valve.	Anaerobic and instant adhesives with viscosities up to 10.000 mPa·s	Forward closing avoids air entrapment and potential premature curing of cyanoacrylates     Dispenses repeatable drop sizes down to 0,005 g     Stroke adjustment for fine-tuning dispense characteristics     Slim ergonomic design greatly reduces hand fatigue
LOCTITE 97135 / 97136 Diaphragm Dispense Valve (IDH 215846 / 215848)		They are pneumatically actuated dispense valves.	Anaerobic adhesives with viscosities up to 2.500 mPa·s (higher for 97136)	Fail-safe spring assists closing of valve upon loss of air pressure     Internal components are PTFE to prevent premature curing     Modular design and floating diaphragm allow for easy deaning
LOCTITE 98013 CA Diaphragm Dispense Valve (IDH 318654)		It is a normally closed diaphragm valve that provides high-resolution stroke adjustment and results in consistent flow control.	Instant adhesives, retaining compounds and threadlockers up to 2.500 mPa·s	Bubble-free, no-drip dispensing Precision adjustment of stroke to control flow Can be used in static position, manually or mounted directly to a robot
LOCTITE 98009 ight Cure Diaphragm Dispense Valve (IDH 218280)		It is a normally closed diaphragm valve that provides high-resolution stroke adjustment and results in consistent flow control.	Light cure adhesives, retaining compounds and threadlockers up to 2.500 mPa·s	Bubble-free, no-drip dispensing Precision adjustment of stroke to control flow Can be used in static position, manually or mounted directly to a robot
LOCTITE 97113/97114 Stationary Applicator Valve (IDH 88644/88645)		This Dispense Applicator Valve with 1/4" feed line (3/8" feed line with 97114) has a modular design and comprises of a product shut-off valve and valve actuator which provides quick on-line serviceability.	Anaerobic and light cure adhesives with viscosities up to 10.000 mPa·s (higher for 97114)	Slim, lightweight, seal-less design Adjustable suck-back feature eliminates stringing and dripping Can be used in static position, manually or mounted directly to a robot

PRESSURE / TII	ME CONTROLLER	RS		
Product Name	Product Image	Description	Application	Benefits
LOCTITE 97006 Digital Syringe Dispenser (IDH 88633)	A SOUTH	It accurately dispenses adhesives or other fluids directly from syringes.	Adhesives and sealants in 10 ml, 30 ml, 55 ml syringes and 300 ml cartridges with viscosities from 5 mPa•s to paste	High precision syringe dispenser for maximum dispense accuracy and control Digital precision regulator for accurate flow control Vacuum suck back to ensure no drips or run-on Useful for all kinds of applications such as drops, beads and potting
LOCTITE 97009 Semi-Automatic Dispensing System HP (High Pressure) (IDH 215845)	Sarani O	It dispenses directly from larger bottles and provides digital timing control for any LOCTITE automatic dispense valve or automatic hand-held applicator. It has pressure range of 0,1 – 4,0 bar (HP).	Anaerobic, instant and light cure adhesives in 250 ml and 500 g bottles viscosities >1.500 mPa•s	Integrated design (controller and reservoir) for simple set-up and space economy Timer-controlled solenoid valve for air-actuated applicator Level sensor to give empty warning Capable of operating in a continuous mode for bead dispensing applications
LOCTITE EQ RC18 Semi-Automatic Dispensing System LP (Low Pressure) (IDH 2260508)	Sorter 1	It dispenses directly from larger bottles and provides digital timing control for any LOCTITE automatic dispense valve or automatic hand-held applicator. It has pressure range of 0,1 – 0,7 bar (LP).	Anaerobic, instant and light cure adhesives in 250 ml and 500 g bottles viscosities <1,500 mPa·s	Integrated design (controller and reservoir) for simple set-up and space economy Timer-controlled solenoid valve for air-actuated applicator Level sensor to give empty warning Capable of operating in a continuous mode for bead dispensing applications
LOCTITE 97152 Dual Channel Controller (IDH 1275665)	LECTITE LECTITE	It is a versatile multi-functional controller for actuating 1 – 2 dispensing valves and accessories. Settings can be made via the membrane keypad and the rotary selector switch. Reservoir pressure is controlled via a precision regulator and monitored electronically.	Depends on the supplementary equipment. E.g. rotorspray, advancing slide, flow monitoring	1 – 2 independent dispensing channels     Integrated solenoid valve module     High precision pressure regulator     PLC interface     Online flow monitor signal evaluation

EQUIPMENT

Product Name	Product Image	Description	Application	Benefits
LOCTITE EQ VA20 Volumetric Dispense Valve (IDH 2084141)		It is a positive displacement metering valve that dispenses a precise drop of adhesive with each cycle.	Light cure adhesives with volumes from 1,5 to 12 μL	High speed automation up to 180 cycles per minute Easily fed from any LOCTITE reservoir Estimated lifetime >1 million cycles Low maintenance requirement Ideal for needle bonding applications
LOCTITE 97611 Compact Rotor Pump 4.0 (IDH 1196160)		It is a precision volumetric dispenser for accurate dispensing applications. The dispenser uses a rotating displacement method consisting of a rotor and a stator.	Anaerobic, light cure and acrylic adhesives with flow rates from 500 to 6.000 µL/min	High repeatability High accuracy +/-1 % valid up to 10.000 mPa+s Reversible direction of flow (suck-back) allows for an exact stop of the product flow Useful for all kinds of applications such as drops, beads and potting
LOCTITE Eccentric Rotor Pump (RD-EC Dispenser) (Multiple IDH's)		Self-priming, rotating displacement pump for relatively small capacities. The pump is ideally suited for dosing and pumping liquids with various viscosities up to pasty consistency. Operation direction is reversible with capacity proportional to speed.	Volumetric dispensing of high viscous and especially moisture sensitive adhesives such as SI's or SMP's	The volumetric dosing or conveying of silicones, adhesives, solder pastes, etc. provides benefits like:  • Pulsation-free conveying  • Self-priming  • Easy to clean  • No dripping  • Multiple different sizes
LOCTITE EQ MM25 Dual Rotor Pump (IDH 1774437)	nn.	It consists of two compact rotor-pumps connected by a manifold where the two adhesive components are brought together. The individual rotor pump speeds can be controlled to provide adhesive mix ratios from 1:1 to 10:1.	2K methyl methacrylate (MMAs), epoxy, silicone and hybrid products in 400 ml cartridges (or individual reservoirs)	Reversible direction of flow (suck-back) allows for an exact stop of the product flow Designed for use in many applications from stationary work cells to integration with LOCTITE Benchtop Robots
LOCTITE EQ VA40 CA Volumetric valve (IDH 2333708)		It is a positive displacement metering valve designed for dispensing precise volumetric drops of CA's with each cycle.	CA adhesives with volumes from 1,5 to 6 μL	High speed automation up to 120 cycles per minute Easily fed from any LOCTITE reservoir Long life seal design: > 1 million cycles Designed for simple, no-mess priming For CA's and flash cure CA's Viscosities up to 10,000mPas Field repairable Ideal for precision dot dispensing

Product Name	Product Image	Description	Application	Benefits
LOCTITE EQ PU20 Digital Peristaltic Dispenser (IDH 2265279)		It is a reliable and effective volumetric dispenser for 1K, low viscosity adhesives. It is great for precise dosing or applications that require a specific flow rate. This dispenser is electro-mechanically operated and does not require the use of air.	Anaerobic, instant and light cure adhesives in 10 ml, 20 g and 30 ml packs as well as solvent-free activators and oils up to a viscosity of approx. 5.000 mPa·s	Air-free dispensing reduces premature curing and clogging of product Instant reverse for vacuum suck-back, shuts off the flow of liquid and prevent dripping Simple and convenient load mechanism for tubing replacement Digital timer and motor speed adjustment Multiple operating modes
LOCTITE EQ RC15 Compact Rotor Pump Controller (IDH 1880232)	INCTITE	It provides all control required to operate the 97611 Compact Rotor Pumps. This controls all the dispensing parameters, such as pump speed, volume dispense, reservoir pressure and rotorspray control (if applicable).	Depends on the supplementary equipment	Easy menu navigation allowing users to select either the amount of product dispensed (in µL) or the dispense rate (in µL/min) Designed to interface seamlessly with compact rotor pump Touch screen display for ease of use Connects directly to standard LOCTITE reservoirs Useful for all kinds of applications such as drops, beads and potting
LOCTITE EQ RC24 Pump Control System (IDH 2636370)		It is used for precise control of volumetric eccentric rotor pumps. The RC24 consists of a touch panel control as well as a brushless servomotor with integrated digital controller.	Volumetric dispensing of high viscosity and especially moisture sensitive adhesives such as SI's or SMP's	Start/stop mode (bead dispensing) Quantity mode (dot dispensing) Lightweight servo drive is ideally suite to mounting to the Z axis of Benchtop Robots
LOCTITE 97160 Dual Rotor Pump Controller (IDH 1533495)	GRADE BOD	It provides all the functions required to control the EQ MM25 Dual Rotor Pump providing precise control of the rotation speed. It can be interfaced with a higher ranking PLC for integration into automatic systems.	2K methyl methacrylate (MMAs), epoxy, silicone and hybrid products in 400 ml cartridges (or individual reservoirs)	Easy menu navigation to allow users to select either the amount of produc dispensed (in ml) or the dispense rate (in ml/min)     Very high repetition accuracy     Automatic purge feature to prevent mixer nozzle curing

— 132 **ДОСТІТЕ**, PRODUCT CATALOGUE

FEED SYSTEMS				
Product Name	Product Image	Description	Application	Benefits
LOCTITE 97108 2 l Reservoir (IDH 135555)	CONTINUE OF THE PARTY OF THE PA	It accommodates LOCTITE bottles and is equipped with a pneumatic connection and an electrical interface for setup with all LOCTITE controllers.	Adhesive bottle sizes 250 ml, 500 g,11 and 2 kg	Operational with semi-automatic and automatic controllers  Low level and empty warning signals (PLC)  Manual dump valve for pressure on/off Reservoir lid holder to avoid contamination
LOCTITE 97631 300 ml Cartridge Pusher (IDH 854181)		It is used to dispense LOCTITE products in 300 ml cartridges such as gel-CA, anaerobics, epoxies and silicones.	Adhesives and sealants in 300 ml syringes / cartridges from low to high viscosity (5 mPa·s to paste)	The Cartridge Dispenser 97631 is used to dispense bubble minimised LOCTITE products in 300 ml cartridges such as gel-CA, anaerobics, epoxies and silicones In connection with a dispensing valve or eccentric rotor pump it can be used in transfer lines, manual or automatic workplaces
LOCTITE EQ MM30 400 ml Dual Cartridge Pusher (IDH 1529531)		It is used as a supply unit for volumetric 2K dispensers, such as the EQ MM25 Dual Rotor Pump. Two independent piston rods are mechanically driven and include path measurement to increase the process reliability.	2K methyl methacrylate (MMAs), epoxy, silicone and hybrid products in 400 ml cartridges	Mixing ratio and dispensed volume can be monitored via path measurement and mechanical pointers     Low level sensing     Independent pressure control

BENCHTOP ROBOT	S
Product Name	Range of Operation
LOCTITE EQ RB40 200D (IDH 2104801)	200 x 200 x 50 mm
<b>LOCTITE EQ RB40 300D</b> (IDH 2104799)	300 x 300 x 100 mm
<b>LOCTITE EQ RB40 400D</b> (IDH 2104795)	400 x 400 x 100 mm
<b>LOCTITE EQ RB40 500D</b> (IDH 2103369)	500 x 500 x 100 mm

LOCTITE Benchtop Robots have features and accessories custom tailored for adhesive dispensing. These units are fully compliant with RIA (Robotic Industry Association) safety guidelines. Programming accessories, dispensing equipment, integration cables and mounting hardware are sold separately.

### **BENEFITS:**

- Independent dispense on/off purge control button on front panel allows adhesive to be purged from a dispense valve to prevent curing or for aiding initial set-up
- No special programming required
- Teach Pendant (IDH 2268727) program storage capabilities allow dispense program to be easily transferred from robot to robot
- 100 programs, 4.000 points memory per program
- Auto-switching power supply 95-132 VAC or 180-250 VAC





EQUIPMENT 134 **LOCTITE** PRODUCT CATALOGUE

Product Name	Due duet Torre	Description	Application	Benefits
Froduct Name	Product Image	Description	Аррисации	Delients
LOCTITE EQ CL32 LED Spot 365 nm / 405 nm Cure Pen (IDH 2182210/2182207)		It is a UV/visible light emitting light source. This system offers a high powered, portable light source capable of consistently curing light cure products that respond to UV/visible light. Due to its unique LED technology, it can provide instant on/off performance and consistent light output. It can be run on its rechargeable batteries or while plugged to the included wall plug adapter.	UVA and UVV curing products	Combines handheld and stationary unit in one device Can be set to timed or continuous operating mode Ergonomic finger switch Rechargeable using mini-USB adapter Long focus length to allow for variable handheld application
LOCTITE EQ CL25 LED Spot Cure System (Multiple IDH's)		LOCTITE EQ CL25 LED Spot Cure Controller is the universal controller that can be interfaced with up to four individual LED curing heads. The accessories come in many options including different lens, length of cables and 365 nm or 405 nm LED heads. The accessories are to be ordered separately.  • EQ CL25 LED Spot Cure Controller (IDH 1786127)  • Short LED Head 365 nm (IDH 184957)  • Short LED Head 405 nm (IDH 2104788)  • Ø 3 mm Lens (IDH 1305335)  • Ø 6 mm Lens (IDH 1305332)  • J.7 m Connector Cable (IDH 1305339)  • 3,0 m Connector Cable (IDH 1305337)  • 10 m Connector Cable (IDH 1305337)  • UV Power Meter (IDH 1523721)	UVA and UVV curing products	No heat at curing area High intensity output – up to 20 W/cm² Long LED lifetime – 20.000 hours Compact size controller

Product Name	Product Image	Description	Application	Benefits
LOCTITE EQ CL30 LED Flood System (Multiple IDH's)		The LOCTITE CL30 LED Flood System is a high intensity flood system specially designed for curing LOCTITE UV and Visible Light Cure adhesives. The modular configuration consists of an LED head with connection cable and controller (ordered separately). Each CL30 head is equipped with 144 high power LED's and integrated reflectors, providing uniform curing across a wide area (100 mm x 100 mm). The heads can also be stacked side by side in two directions further expanding the curing area for maximum flexibility. Also available is the LOCTITE LED Flood Quad Controller which has a touch screen panel, supplies power and control for up to 4 LOCTITE LED Flood Arrays.  • EQ CL30 LED Flood Head 365 nm (IDH 2139182)  • EQ CL30 LED Flood Head 405 nm (IDH 2139180)  • CL30 LED Quad Controller (IDH 2257357)  • 97104 LED Single Flood Controller (IDH 1359255)  • 97360 LED Curing Chamber (IDH 1511839)	UVA and UVV curing products	High intensity at 50 mm distance (365 nm; >500 mW/cm², 405 nm; >1.000 mW/cm²) Typical lifetime >20.000 hours ED arrays stackable side by side No warm-up or cool-down period required Had individual LEDs Energy efficient as LEDs produce minimal wasted energy
LOCTITE 97055 UVALOC 1000 (IDH 805741)	ROTHE.	It is the optimum UV curing chamber that is designed for manual loading and unloading of components to be cured. The emission spectrum of the lamp and radiant power capacity have been designed specifically to meet the requirements of UV curable LOCTITE adhesives.	UVA, UVC and UVV curing products	Standard unit supplied with a 1.000 W medium pressure mercury arc lamp to provide good tack-free and depth cure Optional visible light bulb for plastic bonding Optional iron-doped bulb for maximum depth of cure Complete shielding of operator from exposure to UV light High process safety due to the integrated UV monitoring system
LOCTITE EQ PM20 Radiometer UV VIS/UV AB (IDH 2436352/2436353)	E1123	It is an industry first for measurement of LED light curing devices. The flat response curve makes it uniquely qualified to measure narrow band wavelengths of LED light curing devices. It can also be used with curing chambers, conveyors and flood lamps. This unit combines the all-inone exposure, intensity measurement and profile memory capability into one device. Comes in UV VIS and UV AB variants.	UV AB/VIS radiometers	Measuring UVA/UVB and visible light

— 136 **LOCTITE** PRODUCT CATALOGUE EQUIPMENT 1:

IANUAL / PNE	UMATIC DISPEN	ISERS		
Product Name	Product Image	Description	Application	Benefits
300 ml Manual Cartridge Dispenser (IDH 142240)		It is a manually operated dispenser for adhesives and sealants.	Manual dispenser for plastic and aluminium 290 ml, 300 ml and 310 ml cartridges	Rapid-loading system to make cartrid changes clean and easy Ergonomically designed Simple and clean dispensing
LOCTITE 97002 300 ml Pneumatic Cartridge Dispenser (IDH 88632)		It is a manually controlled, pneumatically operated unit. The amount and rate are controlled by the operator.	Pneumatic dispenser for 300 ml/310 ml plastic and aluminium cartridges and LOCTITE 250 ml tubes	Accurate flow controlled by integral pressure regulator     Quick exhaust to minimise run-on     Ergonomically designed     Simple and clean dispensing
LOCTITE 96001 50 ml Dual Cartridge Manual Dispenser (IDH 267452)		It is a manually operated dispenser to apply 1:1, 2:1 and 10:1 mix ratio products from 50 ml packs.	2K epoxy, polyurethane and hybrid products in 50 ml cartridges	Convenient, cost-effective method or application     Good ergonomic features to minimis operator fatigue
LOCTITE 97042 50 ml Dual Cartridge Pneumatic Dispenser (IDH 476898)		It is a pneumatic dispenser to apply 1:1 mix ratio products from 50 ml packs.	2K epoxy, polyurethane and hybrid products in 50 ml dual cartridges	Lightweight and ergonomic design feasy use Integrated air pressure regulator Convenient 8-position thumb wheel pressure adjustment to control the dispense rate
50 ml 10:1 Dual Cartridge Manual Dispenser (IDH 1034026)		It is a manually operated dispenser to apply 10:1 ratio products from S Type 50 ml packs.	2K acrylic products in 10:1 ratio S Type 50 ml packs	Convenient, cost-effective method of application     Good ergonomic features to minimis operator fatigue
50 ml 10:1 Dual Cartridge Pneumatic Dispenser (IDH 1493310)	N.	It is a pneumatic dispenser to apply 10:1 mix ratio products from 50 ml S Type packs.	2K acrylic products in 10:1 ratio S Type 50 ml packs	Lightweight and ergonomic design for easy use     Integrated air pressure regulator

MANUAL / PNE	UMATIC DISPEN	ISERS		
Product Name	Product Image	Description	Application	Benefits
LOCTITE EQ HD14 200 ml Dual Cartridge Manual / Pneumatic Dispenser (IDH 2693822/2693824)		They are hand-held, manually operated meter-mix dispensers. These dispensers provide a convenient, cost-effective method to apply product with minimal waste. The dispensers are compatible with 1:1, 2:1, 4:1 and 10:1 mix ratio products and are available in manual or pneumatic versions.	Designed for mixing and applying 2K adhesives of various chemistries in 200 ml cartridges	Highly precise dosing results thanks to the quick air exhaust Dispenser immediately achieves its maximum pressure – no power lag Fatigue free handling thanks to improved tool balance and up to 35 % less weight than comparable dispensers Ease of operation – new designed trigger and return button are easily accessible with one hand Conversion kits allow 1:1, 2:1, 4:1 and 10:1 cartridges to be used in the same dispenser
LOCTITE EQ HD14 400 ml Dual Cartridge Manual / Pneumatic Dispenser (IDH 2693823/2693825)		They are hand-held, manually operated meter-mix dispensers. These dispensers provide a convenient, cost-effective method to apply product with minimal waste. The dispensers are compatible with 1:1, 2:1, 4:1 and 10:1 mix ratio products and are available in manual or pneumatic versions.	Designed for mixing and applying 2K adhesives of various chemistries in 400 ml cartridges	Highly precise dosing results thanks to the quick air exhaust Dispenser immediately achieves its maximum pressure – no power lag Fatigue free handling thanks to improved tool balance and up to 35 % less weight than comparable dispensers Ease of operation – new designed trigger and return button are easily accessible with one hand High specification components used to ensure strength and stiffness, even in the harshest environments Conversion kits allow 1:1, 2:1, 4:1 and 10:1 cartridges to be used in the same dispenser
LOCTITE EQ HD12 Pneumatic Spray Dispenser (IDH 2251591)		It includes heavy duty dual cartridge handgun 1.125 ml dual cartridge with spray adapter, pressure regulator, gauge, on / off-valve and air hose.	Suitable for spraying LOCTITE 7255 packaged in 900 ml Dual Cartridges. It is designed for 2:1 mix ratio	Control pressure separately adjustable for advancing cylinder and atomising air A hand lever valve is provided for turning the atomising air supply to the spray nozzle ON and OFF

— 138 **ДОСТІТЕ**, PRODUCT CATALOGUE

Henkel offers suitable stationary accessories (such as nozzles, mixers etc.) for all pieces of equipment. In order to find the optimal nozzle or mixer, please contact your Henkel representative or visit **www.equipment.loctite.com** 

DISPENSING TIPS								
Illustration/Example	Item No.	Order No.	Pack Size, pcs	Colour	Gauge	Inner Ø, mm		
EXIBLE DISPENSING TIPS: DISPENSING NEEDLE, POLYPROPYLENE (PPF), HELICALTHREAD								
	97229	142640	50	Amber	15	1,37		
	97230	142641	50	Green	18	0,84		
	97231	142642	50	Pink	20	0,61		
	97232	142643	50	Red	25	0,25		
APERED DISPENSING TIPS: DISPENS	SING NEEDLE, POLYETHY	LENE – CONICAL (PPC)	, LUER-LOCK					
	97221	88660	50	Grey	16	1,19		
	97222	88661	50	Green	18	0,84		
	97223	88662	50	Pink	20	0,61		
	97224	88663	50	Blue	22	0,41		
IGH PRECISION DISPENSING TIPS:	DISPENSING NEEDLE, ST.	AINLESS STEEL STAND	ARD (SSS), LUER-LOCK					
	97225	88664	50	Amber	15	1,37		
	97226	88665	50	Green	18	0,84		
	97227	88666	50	Pink	20	0,61		
	97228	88667	50	Red	25	0,25		

Illustration	Item No.	Order No.	Pack Size, pcs	Description
	98741	1146079	50	Dispensing needle, stainless steel – PTFE-lined (SSTL), 25 gauge
	97262	218288	2 each	Needle selection pack: 2 each of a variety of dispensing needles
	K1003100	88805	50	Formable dispensing tip, 21 gauge/0,5 mm
1	97248	218275	50	Luer-Lock® tip caps
	97233	88672	20 + 5	Luer-Lock® adapter kit: 20 Luer-Locks® and 5 adapters
-	97207	88656	40	10 ml clear syringe barrel kit

ADDITIONAL DISPEN	ISING TIPS A	AND MIXER	NOZZLES	
Illustration	Item No.	Order No.	Pack Size, pcs	Description
	97283	529462	40	10 ml amber syringe barrel kit, for UV products
0	97263	218287	40	10 ml black syringe barrel kit, for UV and light cure adhesives
P	97208	88657	2	10 ml syringe airline adapter
10	97244	88677	20	30 ml clear syringe barrel kit
0	97264	218286	20	30 ml black syringe barrel kit, for UV and light cure adhesives
9	97245	88678	2	30 ml syringe airline adapter
	97290	397462	50	All plastic precision dispensing tip, 20 gauge
	984569	1487440	10	Static mixer for epoxy and PU in 50 ml, SQ 5.3-24
Marine Ma	984570	1487439	10	Static mixer for epoxy in 200/400 ml, SQ 7.5-24
MINIMA MANAGEMENT	1034575	1034575	10	Static mixer MBX 6.5-20-S 10:1 for LOCTITE AA 3038
• • 7	8953593	1248606	10	Spray mix nozzle for LOCTITE PC 7255
3	8953186	1104046	10	Static mixer 4:1/10:1 for 400/490 ml, MCX 08-18
	5289010	545996	10	Static mixer 1:1 for acrylics in 50 ml, MA 6.3-7
	98457	720174	10	Static mixer 1:1/2:1 in 200/400 ml, MC 8-24
	863585	367545	10	Static mixer 1:1 for MS polymers in 410 ml, MC 13-18
3	8953187	1104047	10	Static mixer 4:1/10:1 in 400/490 ml, MCX 08-24
	8955989	1453183	10	Static mixer for LOCTITE 3090 and LOCTITE 4070, MLX 2.5-16-5
	N/A	1826921	10	Static mixer 1:1/2:1 in 50 ml, MBH 3.2-16 S
	N/A	1573153	10	Static mixer 1:1/2:1 in 50 ml, MBQ 5.0-24 L
***************************************	N/A	1573135	10	Static mixer 1:1/2:1 in 400 ml, MFH 6.0-34 T

— 140 **L@CTITE**® PRODUCT CATALOGUE EQUIPMENT

Product name	Pack sizes	Page
LOCTITE 222	10 ml, 50 ml, 250 ml	10, 13
LOCTITE 243	5 ml, 10 ml, 24 ml, 50 ml, 250 ml	9, 10, 13
LOCTITE 248	9 g, 19 g	10, 13
LOCTITE 270	10 ml, 50 ml, 250 ml	9, 11, 13
LOCTITE 277	50 ml, 250 ml	11, 13
LOCTITE 290	50 ml, 250 ml	11, 13
LOCTITE 3090	11 g	49, 51
LOCTITE 401	20 g, 500 g	47, 48, 51
LOCTITE 406	20 g, 500 g	49, 51
LOCTITE 435	20 g, 500 g	48, 51
LOCTITE 454	20 g	47, 49, 51
LOCTITE 460	20 g, 500 g	49, 51
LOCTITE 480	20 g, 500 g	48, 51
LOCTITE 495	20 g, 500 g	49, 51
LOCTITE 510	50 ml, 160 ml, 250 ml, 300 ml	28, 31
LOCTITE 518	25 ml, 50 ml, 300 ml	28, 31
LOCTITE 5188	50 ml, 300 ml	28, 31
LOCTITE 542	10 ml, 50 ml, 250 ml	19, 20, 21
LOCTITE 55	24 x 160 m, 48 x 160 m	20, 21
LOCTITE 577	50 ml, 250 ml	19, 20, 21
LOCTITE 603	50 ml, 250 ml	38, 41
LOCTITE 620	10 ml, 50 ml, 250 ml	39, 41
LOCTITE 638	50 ml, 250 ml	37, 39, 41
LOCTITE 641	50 ml, 250 ml	38, 41
LOCTITE 648	50 ml, 250 ml	38, 41
LOCTITE 660	50 ml	37, 39, 41
LOCTITE AA 326	50 ml	65, 66, 70
LOCTITE AA 330	50 ml kit	66, 70
LOCTITE AA 3504	250 ml	86, 89

	I	
Product name	Pack sizes	Page
LOCTITE AA 352	250 ml, 1 l	86, 89
LOCTITE AA 3951	25 ml, 1 l	86, 89
LOCTITE AA 3953	25 ml, 1 l	86, 89
LOCTITE EA E-214HP	N/A	67, 70
LOCTITE EA E-30CL	N/A	67, 70
LOCTITE EA 3421	50 ml	66, 70
LOCTITE EA 3423	50 ml, 200 ml	66, 70
LOCTITE EA 3430	24 ml, 50 ml	65, 67, 70
LOCTITE EA 3450	25 ml	67, 70
LOCTITE EA 3463	114 g	108, 109
LOCTITE EA 3478	453 g	109, 110, 111
LOCTITE EA 9450	50 ml	67, 70
LOCTITE EA 9461	50 ml	67, 70
LOCTITE EA 9466	50 ml, 400 ml	68, 70
LOCTITE EA 9492	50 ml, 400 ml	68, 70
LOCTITE EA 9497	50 ml	67, 70
LOCTITE HY 4070	11 g, 45 g	56, 57
LOCTITE HY 4090	50 ml, 400 ml	58, 59
LOCTITE LB 8008	453 g	119, 120, 121
LOCTITE LB 8009	453 g	120, 121
LOCTITE LB 8040	400 ml	115
LOCTITE LB 8150	500 g	120, 121
LOCTITE LB 8201	400 ml	115
LOCTITE NS 5540	430 g, 850 g	28, 31
LOCTITE NS 5550	1 kg	28, 31
LOCTITE PC 5070	1,8 m	126
LOCTITE PC 7218	1 kg, 10 kg	99, 100, 101
LOCTITE PC 7222	1,36 kg	100, 101
LOCTITE PC 7226	1 kg	99, 100, 101
LOCTITE PC 7227	1 kg	100, 101

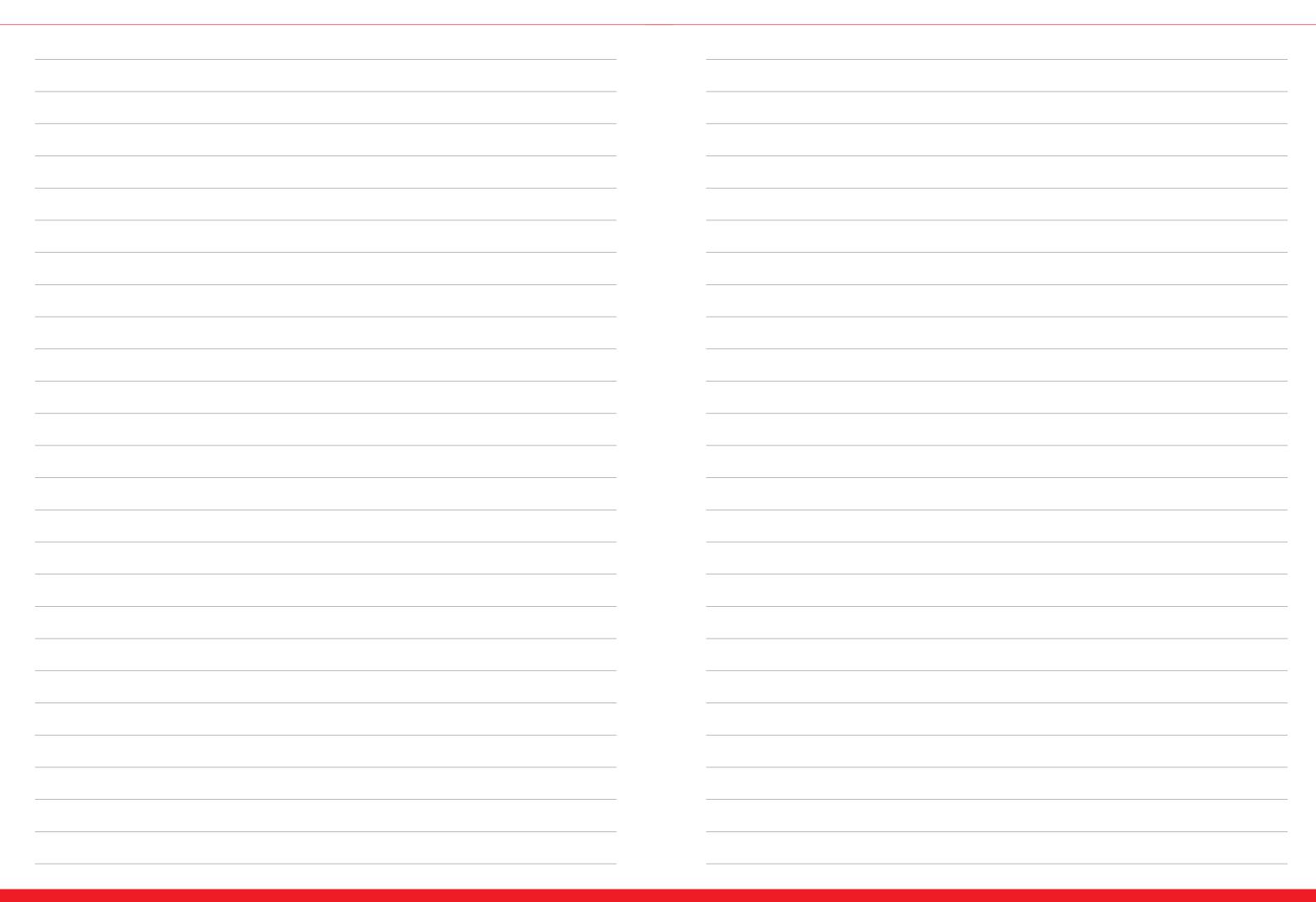
Product name	Pack sizes	Page
LOCTITE PC 7234	1 kg	100, 101
LOCTITE PC 7255	1,125 l	100, 101
LOCTITE PC 7352	400 ml	107, 108, 109
LOCTITE SF 7070	400 ml, 10 l, 200 l	12, 21, 30, 40, 50, 93, 94, 95
LOCTITE SF 790	400 ml	30, 93, 94, 95
LOCTITE SF 7455	18 ml, 150 ml, 500 ml, 20 l	50
LOCTITE SF 7515	5 I, 20 I	127
LOCTITE SF 7649	150 ml, 500 ml	12, 21, 30, 40
LOCTITE SF 770	10 g, 300 g	50
LOCTITE SF 7840	750 ml, 5 l, 20 l, 200 l	94, 95
LOCTITE SF 7850	400 ml, 3 l, 10 l	94, 95
LOCTITE SF 7900	400 ml	126
LOCTITE SI 5075	4,27 m	127
LOCTITE SI 5300	310 ml	29, 31
LOCTITE SI 5331	100 ml	20, 21
LOCTITE SI 5366	310 ml	79
LOCTITE SI 5368	310 ml	79
LOCTITE SI 5699	80 ml, 300 ml	29, 31
LOCTITE SI 5900	300 ml	29, 31
LOCTITE SI 5910	300 ml	27, 29, 31
LOCTITE SI 5970	300 ml	29, 31
LOCTITE SI 5980	100 ml	29, 31
TEROSON MS 930	310 ml	77, 79
TEROSON MS 939	290 ml	77, 78, 79
TEROSON MS 9399	400 ml	78, 79
TEROSON PU 9225 SF	50 ml	68, 71

— 142 **Д@СТІТЕ**。 PRODUCT CATALOGUE

Equipment	IDH No.	Page
PRESSURE/TIME VALVES		132
LOCTITE 97130 Ergoloc Valve	444643	132
LOCTITE 97135/97136 Diaphragm Dispense Valve	215846/215848	132
LOCTITE 98013 CA Diaphragm Dispense Valve	318654	132
LOCTITE 98009 Light Cure Diaphragm Dispense Valve	218280	132
LOCTITE 97113 / 97114 Stationary Applicator Valve	88644/88645	132
PRESSURE/TIME CONTROLLERS		133
LOCTITE 97006 Digital Syringe Dispenser	88633	133
LOCTITE 97009 Semi-Automatic Dispensing System HP (High Pressure)	215845	133
LOCTITE EQ RC18 Semi-Automatic Dispensing System LP (Low Pressure)	2260508	133
LOCTITE 97152 Dual Channel Controller	1275665	133
VOLUMETRIC VALVES		134
LOCTITE EQ VA20 Volumetric Dispense Valve	2084141	134
LOCTITE 97611 Compact Rotor Pump 4.0	1196160	134
LOCTITE Eccentric Rotor Pump (RD-EC Dispenser)	Multiple IDH's	134
LOCTITE EQ MM25 Dual Rotor Pump	1774437	134
VOLUMETRIC CONTROLLERS		135
LOCTITE EQ PU20 Digital Peristaltic Dispenser	2265279	135
LOCTITE EQ RC15 Compact Rotor Pump Controller	1880232	135
LOCTITE EQ RC24 Pump Control System	2636370	135
LOCTITE 97160 Dual Rotor Pump Controller	1533495	135
FEED SYSTEMS		136
LOCTITE 97108 2   Reservoir	135555	136
LOCTITE 97631 300 ml Cartridge Pusher	854181	136
LOCTITE EQ MM30 400 ml Dual Cartridge Pusher	1529531	136
BENCHTOP ROBOTS		137
LOCTITE EQ RB40 200D	2104801	137
LOCTITE EQ RB40 300D	2104799	137
LOCTITE EQ RB40 400D	2104795	137
LOCTITE EQ RB40 500D	2103369	135

Equipment	IDH No.	Page
LIGHT CURE SYSTEMS		136 / 137
LOCTITE EQ CL32 LED Spot 365 nm / 405 nm Cure Pen	2182210 / 2182207	136
LOCTITE EQ CL25 LED Spot Cure System	Multiple IDH's	136
LOCTITE EQ CL30 LED Flood System	Multiple IDH's	137
LOCTITE 97055 UVALOC 1000	805741	137
LOCTITE EQ PM20 Radiometer UV VIS / UV AB	2436352 / 2436353	137
MANUAL / PNEUMATIC DISPENSERS		138 / 139
300 ml Manual Cartridge Dispenser	142240	138
LOCTITE 97002 300 ml Pneumatic Cartridge Dispenser	88632	138
LOCTITE 96001 50 ml Dual Cartridge Manual Dispenser	267452	138
LOCTITE 97042 50 ml Dual Cartridge Pneumatic Dispenser	476898	138
50 ml 10:1 Dual Cartridge Manual Dispenser	1034026	138
50 ml 10:1 Dual Cartridge Pneumatic Dispenser	1493310	138
LOCTITE EQ HD14 200 ml Dual Cartridge Manual / Pneumatic Dispenser	2693822 / 2693824	139
LOCTITE EQ HD14 400 ml Dual Cartridge Manual / Pneumatic Dispenser	2693823 / 2693825	139
LOCTITE EQ HD12 Pneumatic Spray Dispenser	2251591	139
DISPENSING TIPS		140
Flexible Dispensing Tips: Dispensing Needle, Polypropylene (PPF), Helicalthread		140
Tapered Dispensing Tips: Dispensing Needle, Polyethylene – Conical (PPC), Luer-Lock		140
High Precision Dispensing Tips: Dispensing Needle, Stainless Steel Standard (SSS), Luer-Lock		140
ADDITIONAL DISPENSING TIPS AND MIXER NOZZLES		140 / 141

— 144 **ДОСТІТЕ**, PRODUCT CATALOGUE



PRODUCT CATALOGUE PRODUCT CATALOGUE 147 -



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