# THREAD SEALANTS

# Leaks cause downtime. Liquid thread sealants prevent them.



#### **PROBLEM**

With conventional thread sealants: Pressurised fluids and gas can cause costly leaks and downtime.

#### SOLUTION

With liquid thread sealants: Joints are sealed to the burst point of most piping systems.

# 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.



### 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.

#### 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.

#### PLASTIC

For plastic to plastic or metal to plastic combinations use LOCTITE Silicone threadsealants or LOCTITE 55.



#### 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.



#### **General Purpose**

LOCTITE 577 is a general purpose thread sealant which provides an instant seal. Tolerates minor surface contaminants, rated up to 180 °C operating temperature.

#### **Benefits:**

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



**Substrate:** Metal

**Thread type:** Coarse – Max thread size M80 /R3"



Form: Anaerobic liquid







# **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: Metal

**Thread type:** Fine – Max thread size M26 / R3/4"

Form: Anaerobic liquid

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#### THREAD SEALANTS

# Find the right product for your application

**SUBSTRATE** 

Metal

Plastic

LOCTITE SI 5331 LOCTITE 55

LOCTITE 577

LOCTITE 5400 LOCTITE 542 LOCTITE 55

#### Metal



LOCTITE 5400 Health & Safety\* Substrate: Metal Thread type: Coarse Coarse Form: Liquid Viscosity: 12,500 mPa·s Temperature resistance: 150 °C



LOCTITE 577

General Purpose



Substrate: Metal

Thread type: Fine



Viscosity: 600 mPa·s Temperature resistance: 150 °C



Thread type: Coarse

**Form:** Cord

Viscosity: Cord Temperature resistance: 150 °C

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

Please contact your local sales engineer if you wish to use LOCTITE Threadlockers on larger thread sizes than stated.

https://www.henkel-adhesives.com/ uk/en/products/industrial-sealants/ thread-sealants.html

# Plastic



**Form:** Paste

**Viscosity:** 50,000 mPa•s **Temperature resistance:** 150 °C



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

### Surface Preparation



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.

# Equipment



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.



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 Activator

Designed to promote the curing speed of LOCTITE anaerobic adhesives and sealants. Especially recommended for applications with passive metals or inert surfaces and with large bond gaps.



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.



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

Please refer to page 130 for additional equipment/information.

#### THREAD SEALANTS

Product	Pack Size	Features	Colour	Brookfield Viscosity (mPa•s) 20 RPM	Thixotropic (Yes/No)	Temperature Range (°C)	Breakaway Torque, Steel M10 (Nm)
METAL							
LOCTITE 542	10 ml, 50 ml, 250 ml	Pneumatic/hydraulic sealant	Brown	600	No	-55 to +150	15
LOCTITE 577	50 ml, 250 ml	Medium strength, general purpose	Yellow	25,000	Yes	-55 to +180	33
LOCTITE 5400	50 ml, 250 ml	Enhanced health and safety	Yellow to dark orange	12,500	Yes	-55 to +150	19
METAL OR PLASTIC							
LOCTITE 55	24 x 50 m, 48 x 160 m	Metal and plastic compatible, allows post-adjustment	White	Cord	_	-55 to +150	N/A
LOCTITE SI 5331	100 ml	For plastic and metal, silicone-based	White	50,000	No	-55 to +150	1.5

#### LOCTITE SERVICES

# PREVENT COSTLY LEAKS AND UNPLANNED DOWNTIME.

https://www.henkel-adhesives.com/ uk/en/services.html



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# 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 rework
- Henkel on-site application training reduces product over use to lower material usage costs