

## LOCTITE® 262™

February 2022

### Product description

LOCTITE® 262™ provides the following product characteristics:

<b>Technology</b>	Acrylic
Chemical type	Dimethacrylate ester
Appearance (uncured)	Red liquid
Fluorescence	Positive under UV light
Components	One component – requires no mixing
Viscosity	Medium, thixotropic
<b>Cure</b>	Anaerobic
Secondary Cure	Activator
<b>Application</b>	Threadlocking
Strength	Medium to high

LOCTITE® 262™ is designed for the permanent locking and sealing of threaded fasteners. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Typical applications include the locking and sealing of large bolts and studs (up to M25). The thixotropic nature of LOCTITE® 262™ reduces the migration of liquid product after application to the substrate.

### Mil-S-46163A

LOCTITE® 262™ is tested to the lot requirements of Military Specification Mil-S-46163A. **Note:** This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

### ASTM D5363

Each lot of adhesive produced in North America is tested to the general requirements defined in paragraphs 5.1.1 and 5.1.2 and to the Detail Requirements defined in section 5.2.

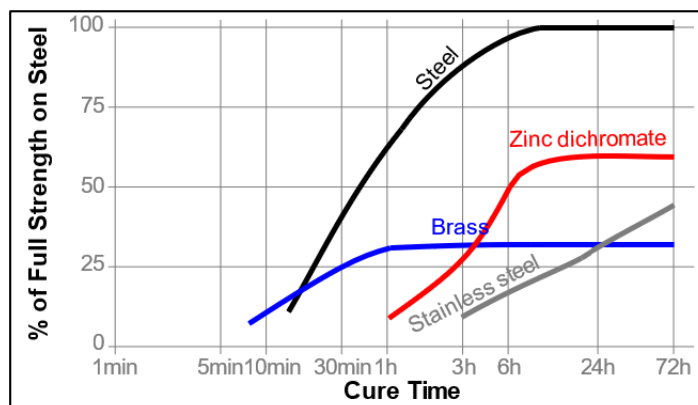
### Typical properties of uncured material

Specific Gravity @ 25°C	1.1
Flash point - see SDS	
Viscosity, Brookfield - RVT, 25°C, mPa·s (cP): Spindle 3, speed 20 rpm	1200 to 1400
Viscosity, EN 12092 - MV, 25°C, after 180s, mPa·s (cP):	400
Shear rate 129s <sup>-1</sup>	

### Typical curing performance

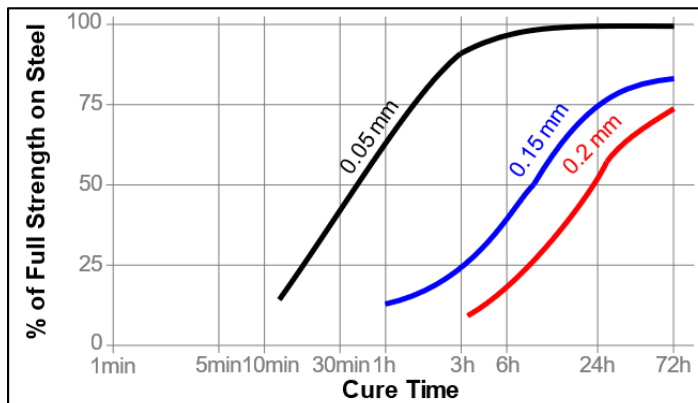
#### Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The graph below shows the breakaway strength developed with time on M10 steel nuts and bolts compared to different materials and tested according to ISO 10964.



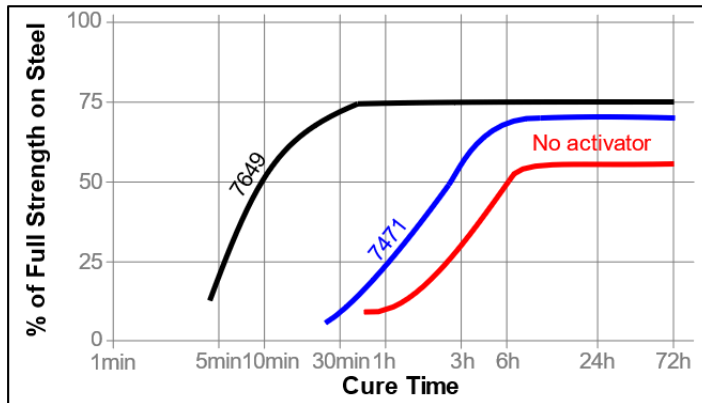
#### Cure speed vs. bond gap

The rate of cure will depend on the bondline gap. Gaps in threaded fasteners depends on thread type, quality and size. The following graph shows shear strength developed with time on steel pins and collars at different controlled gaps and tested according to ISO 10123.



**Cure speed vs. activator**

Where cure speed is unacceptably long, or large gaps are present, applying activator to the surface will improve cure speed. The graph below shows the breakaway strength developed with time on M10 zinc dichromate steel nuts and bolts using Activator SF 7471™ or SF 7649™ and tested according to ISO 10964.



**Typical performance of cured material**

**Adhesive properties**

After 24 hours @ 22°C Breakaway torque, ISO 10964: M10 steel nuts and bolts	N·m (lb·in)	22 (190)
Prevail Torque, ISO 10964: M10 steel nuts and bolts	N·m (lb·in)	32 (280)
Breakloose torque, ISO 10964, pre-torqued to 5 N·m: M10 steel nuts and bolts	N·m (lb·in)	38 (340)
Max. Prevail Torque, ISO 10964, Pre- torqued to 5 N·m: M10 steel nuts and bolts	N·m (lb·in)	40 (350)
Compressive shear strength, ISO 10123: Steel pins and collars	N/mm <sup>2</sup> (psi)	≥10 (≥1,450)
After 1 hour @ 22°C Compressive shear strength, ISO 10123: Steel pins and collars	N/mm <sup>2</sup> (psi)	≥3 (≥435)

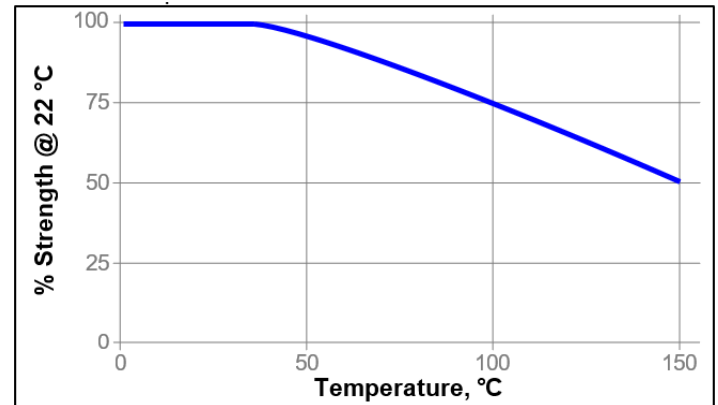
**Typical environmental resistance**

Cured for 1 week @ 22 °C

Breakloose torque, ISO 10964, pre-torqued to 5 N·m:  
M10 zinc phosphate steel nuts and bolts:

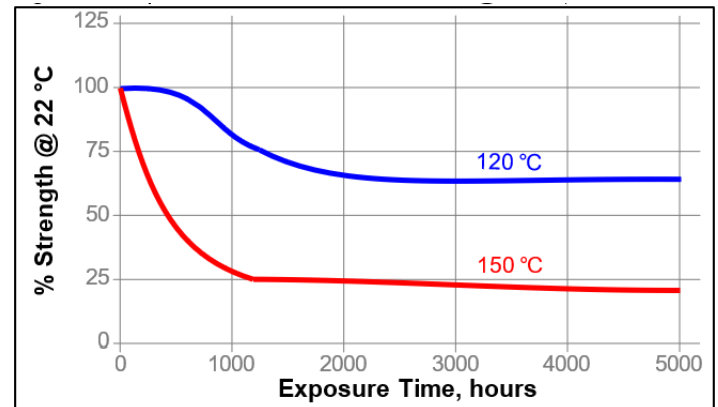
**Hot strength**

Tested at temperature



**Heat Aging**

Aged at temperature indicated and tested @ 22 °C.



**Chemical/solvent resistance**

Aged under conditions indicated and tested @ 22 °C.

Environment	°C	% of initial strength			
		100 h	500 h	1000 h	5000 h
Motor oil (MIL-L-46152)	125	85	85	75	75
Leaded petrol	22	100	100	100	100
Brake fluid	22	100	100	100	100
Water/glycol 50/50	87	100	85	85	85
Acetone	22	95	95	95	95
Ethanol	22	95	95	95	95
DEF (AdBlue®)	22		128	140	125



**General information**

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet.

**Directions for use****Surface preparation**

Proper surface preparation is critical to the long-term performance of this product. The exact requirements vary with the severity of the application, expected service life, and initial substrate conditions.

1. Remove dirt, oil, grease etc with a suitable cleaner, e.g. high pressure water cleaning system using LOCTITE® cleaner/degreaser.
2. All skip welds, weld spatter, buckshot, and other surfaceroughness must be ground down; undercuts and pinholes must be ground and filled. All projections, sharp edges, high points and fillets must be ground to a radius of at least 3mm and all corners must be likewise rounded to maximize product performance.
3. Blast all surfaces to be coated with a sharp edged angular grit to a depth of profile of 75 to 100 microns and a degree of cleanliness of Near White Metal (SIS SA 2½ /SSPC-SP 10).
4. After blasting, metal surfaces should be cleaned with solvent based, residue free cleaner, and be coated before any oxidation or contamination takes place.
5. Metal that has been in contact with salt solutions, e.g. seawater, should be grit blasted and high-pressure water blasted, left for 24 hours to allow any salts in the metal to sweat to the surface. A test for chloride contamination should be performed. The procedure should be repeated until chloride concentration on the surface is below 50mg/m<sup>2</sup> (5µg/cm<sup>2</sup>). Then blast and clean the surface as described on point 3 and 4 above.

**Mixing**

1. Measure 4 parts resin to 1 part hardener by volume or weight.
2. Transfer measured quantities or entire kit onto a clean and dry mixing surface and mix together with a trowel until uniform in color.
3. If mixing larger quantities, a spiral mixing blade attached to a high torque electric or pneumatic drill can be used.
4. If resin and hardener temperatures are 15°C or below, preheat resin only to about 30°C but not to exceed 40°C.

**Application**

1. Apply fully mixed material to the prepared surface.
2. Initially apply the material in a very thin layer to "wet" out the surface and avoid air entrapment.
3. Build up to desired thickness (minimum 6 mm), avoid air entrapment.
4. At 23°C the working time is 30 minutes. Functional cure time is 6 hours, post cure at 148°C for 2 hours.

**Inspection**

1. Visually inspect for pinholes and voids just after application.
2. Once the coating has cured, repeat visual inspection to confirm absence of pinholes, voids, or damaged areas.
3. Control thickness of the coating, especially in the critical points.
4. Perform a test with a holiday detector to confirm coating continuity.

**Repairs**

Any voids, pinholes, low thickness areas found in the coating should be repaired by lightly abrading, cleaning and applying further product.

**Clean-up**

Immediately after use, clean tools with LOCTITE® solvent based cleaner. Once cured, the material can only be removed mechanically.

**Storage**

Store product in the unopened container in a dry location. Storage information may be indicated on the product package labeling.

**Optimal Storage: 8°C to 21°C. Storage below 8°C or greater than 28°C can adversely affect product properties.**

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Henkel representative.

**Product specification**

The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

**Approval and certificate**

Please contact Henkel representative for related approval or certificate of this product.

**Data ranges**

The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.

Temperature/Humidity Ranges: 23°C / 50% RH = 23±2°C / 50±5% RH



**Conversions**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\mu\text{m} / 25.4 = \text{mil}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{MPa} \times 145 = \text{psi}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

**Disclaimer**

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