



LOCTITE® 7471™

February 2008

PRODUCT DESCRIPTION

LOCTITE® 7471™ provides the following product characteristics:

| | |
|----------------------|---|
| Technology | Activator for LOCTITE® anaerobic adhesives and sealants |
| Chemical Type | Amine and Thiazole |
| Solvent | Acetone and Isopropanol |
| Appearance | Transparent, yellow to amber liquid <small>LMS</small> |
| Viscosity | Very low |
| Cure | Not applicable |
| Application | Cure acceleration of LOCTITE® anaerobic products |

LOCTITE® 7471™ is used where increased cure speed of LOCTITE® anaerobic products is required. It is especially recommended for applications with passive metals or inert surfaces and with large bond gaps. LOCTITE® 7471™ is particularly recommended when prevailing temperature is low (<15 °C).

TYPICAL PROPERTIES

| | |
|-------------------------------|----------------------------------|
| Specific Gravity @ 25 °C | 0.79 |
| Viscosity @ 20 °C, mPa·s (cP) | 2 |
| Drying Time @ 20 °C, seconds | 30 to 70 |
| On Part Life, days | ≤7 |
| Infrared Spectrum | To match standard ^{LMS} |
| Flash Point - See MSDS | |

TYPICAL PERFORMANCE

Fixture time and cure speed achieved as a result of using LOCTITE® 7471™ depend on the adhesive used and the substrate bonded.

| | |
|--|-----|
| Fixture Time, ISO 4587, minutes: | |
| Zinc dichromate using LOCTITE® 640™, two side activation | ≤25 |

(Fixture time is defined as the time to develop a shear strength of 0.1 N/mm²)

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

After 5 minutes @ 25 °C

| | |
|--|---|
| Compressive Shear Strength, ISO 10123: | |
| Steel pins and collars (degreased), using LOCTITE®640™ | N/mm ² ≥4.5 ^{LMS} (psi) (≥2,935) |

Handling precautions

Activator must be handled in a manner applicable to highly flammable materials and in compliance with relevant local regulations.

The solvent can affect certain plastics or coatings. It is recommended to check all surfaces for compatibility before use.

GENERAL INFORMATION

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

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

Under no circumstances should activator and adhesive be mixed directly as liquids.

Use only in a well ventilated area

Where aqueous washing systems are used to clean the surfaces before bonding, it is important to check for compatibility of the washing solution with the adhesive. In some cases these aqueous washes can affect the cure and performance of the adhesive.

Directions for use

1. Spray or brush on the activator on both mating surfaces to be bonded. For small gaps, treatment of only one surface may be adequate. Contaminated surfaces may need repeated treatment or special degreasing prior to activation to remove any dissolvable contamination. Porous surfaces may need two treatments of activator.
2. Allow the solvent time to evaporate under good ventilation until the surfaces are completely dry.
3. After activation, parts should be bonded within 7 days. Contamination of the surface before bonding should be prevented.
4. Apply the Loctite Anaerobic product to one or both surfaces and assemble parts immediately.
5. Where possible, move surfaces in relation to each other for a few seconds on assembly to properly distribute the adhesive and for maximum activation..
6. Secure the assembly and await fixturing before any further handling..

Loctite Material Specification^{LMS}

LMS dated September 01, 1995. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.



Storage

This activator is classified as **HIGHLY FLAMMABLE** and must be stored in an appropriate manner in compliance with relevant regulations. Do not store near oxidising agents or combustible materials. The product is light sensitive and accordingly, translucent containers should be kept in a dark place when not in use. Store product in the unopened container in a dry location. Storage information may also be indicated on the product container labelling.

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 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 Technical Service Center or Customer Service Representative.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\mu\text{m} / 25.4 = \text{mil}$

$\text{N} \times 0.225 = \text{lb}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{N/mm}^2 \times 145 = \text{psi}$

$\text{MPa} \times 145 = \text{psi}$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$

$\text{mPa}\cdot\text{s} = \text{cP}$

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

Reference 1.1