

LOCTITE® UR 7001Known as LOCTITE® Gray Urethane Sealant
January 2015**PRODUCT DESCRIPTION**

LOCTITE® UR 7001 provides the following product characteristics:

Technology	Urethane
Appearance (uncured)	Thick gray paste
Components	One component - requires no mixing
Cure	Humidity
Application	Sealing
Specific Benefit	<ul style="list-style-type: none"> • Lifelong flexibility • Excellent weatherability • Outstanding water resistance • Non sagging • Paintable

LOCTITE® UR 7001 is a gun grade polyurethane that is recommended for sealing and caulking applications, particularly in movable joints and exterior environments. It cures to a flexible rubber that forms strong bonds to properly prepared concrete, masonry, glass, plastics, wood, aluminum and other metals. When cured it has excellent adhesion, cohesion and elasticity and resists deterioration from weather, stress, movement, water and many chemicals. Typical applications include forming expansion joints, installing skylights and roof flashings, sealing gutters, sealing ductwork, filling concrete cracks, curtain wall construction, and installing aluminum and wooden window frames. This product is typically used in applications with an operating range of -40 °C to +82 °C.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Flow, ISO 7390, mm	≤6.35 ^{LMS}
Viscosity @ 25°C, mPa·s (cP)	400,000 to 800,000 ^{LMS}
Coverage, 0.64 x 0.64 cm ()	7.62 m

TYPICAL PROPERTIES OF CURED MATERIAL

Cured @ 25 °C except where noted

Physical Properties:

Shore Hardness, ISO 868, Durometer A	33
Elongation, ISO 37, %	1,000
Tensile Strength, ISO 37	N/mm ² 1.38 (psi) (200)

TYPICAL PERFORMANCE OF CURED MATERIAL

Cured @ 25 °C except where noted

Lap Shear Strength, ISO 4587:

Aluminum (acid etched), 0.05 mm gap	N/mm ² 1.17 (psi) (170)
-------------------------------------	---------------------------------------

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 Safety Data Sheet (SDS).

Handling precautions

Containers should not be opened until preparatory work has been completed. LOCTITE® UR 7001 should not be used for immersion in water containing high levels of chlorine; such as swimming pools, whirlpools, and some fountains

Directions for use:**1. Surface Preparation:**

Surface must be structurally sound, dry, clean and free of dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, waterproofing, curing and parting compounds, and membrane materials.

2. Masonry:

Concrete, stone, and other masonry must be cleaned where necessary by grinding, sandblasting, or wire brushing to expose a sound surface, free of contamination.

3. Wood and Painted Wood:

Cut back weathered and treated surfaces and dry rot until clean, sound wood is reached. LOCTITE® UR 7001 will adhere to most new and old dry, oil-free wood and sound painted surfaces. Scrape away any loose paint to bare wood.

4. Metal:

Scale, rust, and coatings must be removed to expose bright metal. Protective coatings should be removed with a solvent, as well as any chemical residue or film. LOCTITE® UR 7001 will adhere to painted metal surfaces provided the paint is sound. Scrape away any peeling or loose paint.

5. Sealant Application:

Application is by cartridge gun or air-pressure equipment. All caulking and sealing must be performed when temperatures are above 4°C in order to avoid application to moist surfaces. Sealant should be tooled immediately to ensure maximum adhesion and neat joint appearance.

6. Curing

The cure of LOCTITE® UR 7001 varies with temperature and humidity. Under nominal conditions (25°C and 50% relative humidity), it will have a heavy skin overnight or within 24 hours. In a typical joint of 1.27 cm width by .64 cm depth, LOCTITE® UR 7001 is functional in 3 days, and approximates full cure in about a week.

Loctite Material Specification^{LMS}

LMS dated January 21, 2002. 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

Store product in the unopened container in a dry location. Storage information may be indicated on the product container 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 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 information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:

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 0.2