



# LOCTITE<sup>®</sup> Gray Urethane Sealant

December 2007

## PRODUCT DESCRIPTION

LOCTITE<sup>®</sup> Gray Urethane Sealant provides the following product characteristics:

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

LOCTITE<sup>®</sup> Gray Urethane Sealant 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 <sup>LMS</sup>
Viscosity @ 25 °C, mPa·s (cP)	400,000 to 800,000 <sup>LMS</sup>
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 <sup>2</sup> 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 <sup>2</sup> 1.17 (psi) (170)
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## 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 (MSDS).**

## Handling precautions

Containers should not be opened until preparatory work has been completed. LOCTITE<sup>®</sup> Gray Urethane Sealant 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<sup>®</sup> Gray Urethane Sealant 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<sup>®</sup> Gray Urethane Sealant 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<sup>®</sup> Gray Urethane Sealant 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<sup>®</sup> Gray Urethane Sealant is functional in 3 days, and approximates full cure in about a week.

**Loctite Material Specification**<sup>LMS</sup>

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**

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Reference 0.1