

# LOCTITE<sup>®</sup> Nordbak<sup>®</sup> Ceramic Tile Adhesive

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## PRODUCT DESCRIPTION

LOCTITE<sup>®</sup> Nordbak<sup>®</sup> Ceramic Tile Adhesive provides the following product characteristics:

<b>Technology</b>	Epoxy
<b>Chemical Type</b>	Epoxy
<b>Appearance (Resin)</b>	Off-white <sup>LMS</sup>
<b>Appearance (Hardener)</b>	Off-white <sup>LMS</sup>
<b>Appearance (Mixture)</b>	White to grayish paste
<b>Components</b>	Two component - requires mixing
<b>Mix Ratio, by volume - Resin : Hardener</b>	1 : 1
<b>Mix Ratio, by weight - Resin : Hardener</b>	1 : 1.25
<b>Cure</b>	Room temperature cure
<b>Application</b>	Bonding
<b>Specific Application</b>	<ul style="list-style-type: none"> <li>Bonding ceramic tiles</li> <li>Pact holes in pressure systems</li> <li>Secure vertical anchor bolts</li> <li>General purpose bonding</li> </ul>
<b>Specific Benefit</b>	<ul style="list-style-type: none"> <li>Non-sag paste - allows application versatility for overhead and vertical surfaces</li> <li>Easy to mix and use</li> <li>Will not break or chip - withstands shock and impact</li> <li>Adheres to most clean surfaces - versatile</li> </ul>

LOCTITE<sup>®</sup> Nordbak<sup>®</sup> Ceramic Tile Adhesive is a high strength epoxy for installing ceramic tiles quickly and securely. This two-component material is suitable for both horizontal and vertical applications and has excellent shock and impact resistance under typical dry service temperatures -29 °C to +93 °C.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

### Resin:

Weight Per Gallon, lbs/gal 12.1 to 12.9<sup>LMS</sup>  
 Viscosity, Brookfield - RV, 25 °C, mPa·s (cP):  
 Spindle TF, speed 2.5 rpm, 1,800,000 to 2,700,000<sup>LMS</sup>

### Hardener:

Weight Per Gallon, lbs/gal 15.2 to 16.0<sup>LMS</sup>

### Mixed:

Coverage 1.6 m<sup>2</sup> @ 0.32 cm thick/9.1 kg  
 (20 ft<sup>2</sup> @ 0.125 in thick/20 lb)

## TYPICAL CURING PERFORMANCE

### Curing Properties

Gel Time @ 70 °C, minutes: 12 to 22<sup>LMS</sup>  
 100 g mass  
 Cure Time @ 25 °C, hours 12  
 Working Time @ 25 °C, minutes 60

## TYPICAL PROPERTIES OF CURED MATERIAL

Cured @ 25 °C

### Physical Properties:

Shore Hardness, ISO 868, Durometer D 88  
 Compressive Strength, ISO 604 N/mm<sup>2</sup> 96.6  
 (psi) (14,000)

## TYPICAL PERFORMANCE OF CURED MATERIAL

### Adhesive Properties

Cured @ 25 °C

Lap Shear Strength, ISO 4587:

Aluminum (acid etched):  
 0.125 mm gap N/mm<sup>2</sup> 34.5  
 (psi) (5,000)

## 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).**

### Directions for use:

#### Surface Preparation:

- Success with this material depends on proper bond to substrate. Surfaces to be bonded MUST be free of oil, dirt, rust, paint, and MUST be above 10 °C for the adhesive to harden properly. Gritblast or grind surfaces to be bonded.

#### Mixing:

- Measure 1 part resin to 1 part hardener by volume or weight, transfer entire kit onto a clean and dry mixing surface and mix together until uniform in color.
- If resin and hardener temperatures are 15 °C or below, preheat resin only to about 32 °C but not to exceed 38 °C.
- Apply adhesive to both surfaces and immediately press in place to push out air.

**Technical Tips for Working With Epoxies**

Working time and cure depends on temperature and mass:

- The higher the temperature, the faster the cure.
- The larger the mass of material, the faster the cure.

To speed the cure of epoxies at low temperatures:

- Store epoxy at room temperature.
- Pre-heat repair surface until warm to the touch.

To slow the cure of epoxies at high temperatures:

- Mix epoxy in small masses to prevent rapid curing.
- Cool resin/hardener component(s).

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

LMS dated July 2, 2002 (Resin) and LMS dated July 2, 2001 (Hardener). 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 Loctite Quality.

**Conversions**

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

**Storage**

Store product in the unopened container in a dry location. Material removed from containers may be contaminated during use. Do not return liquid to original container. 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.**

Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those recommended. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

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## Reference 1.3