

LOCTITE® Nordbak® Combo Bead Wearing Compound

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PRODUCT DESCRIPTION

LOCTITE® Nordbak® Combo Bead Wearing Compound provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (Resin)	Gray ^{LMS}
Appearance (Hardener)	White to beige ^{LMS}
Appearance (Mixed)	Gray paste
Components	Two component - requires mixing
Mix Ratio, by volume - Resin : Hardener	2 : 1
Mix Ratio, by weight - Resin : Hardener	2 : 1
Cure	Room temperature cure
Application	Abrasion resistance
Specific Benefit	<ul style="list-style-type: none"> • Better wear properties for fine and large wear particle abrasion • Won't sag or shrink - conforms to over-head and irregular surfaces • Extends wear life - resists sliding abrasive wear and eliminates costly wear part inventory

LOCTITE® Nordbak® Combo Bead Wearing Compound combines the abrasion resistant properties of both large and small ceramic beads and silicon carbide in a trowelable epoxy that protects against the damage of hard sliding abrasion under typical dry service temperatures of -29 °C to +121 °C. Typical applications include transport elbows and transitions, pump liners and impellers, chute linings and hoppers, cyclone and separator bodies, fan blades and housing, scrubbers, dust collectors and exhausters, large pump suction areas.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Resin:	
Weight Per Gallon, lbs/gal	15.5 to 16.3 ^{LMS}
Hardener:	
Weight Per Gallon, lbs/gal	16.6 to 17.6 ^{LMS}
Mixed:	
Coverage	0.2 m ² @ 6 mm thick/2.5 kg (2.3 ft ² @ 0.25 in thick/6 lb)

TYPICAL CURING PERFORMANCE

Curing Properties

Gel Time @ 25 °C, minutes:	
400 g mass	45 to 85 ^{LMS}
Working Time @ 25 °C, minutes	25
Cure Time @ 25 °C, hours	8

TYPICAL PROPERTIES OF CURED MATERIAL

Cured @ 25 °C

Physical Properties:

Shore Hardness, ISO 868, Durometer D	90
Compressive Strength, ISO 604	N/mm ² 89.7 (psi) (13,000)

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 Material Safety Data Sheet (MSDS).

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. On vertical or overhead areas, it is recommended to tack expanded metal mesh to substrate before application of LOCTITE® Nordbak® Combo Bead Wearing Compound.
2. Clean, dry and abrade application surface. The more thorough the degree of surface preparation the better the performance of the application. If possible, it is recommended that the surface be grit blasted to a Near White Metal (SSPC-SP10/NACE No. 2) Standard. For less severe applications roughening the surface with hand tools is suitable.
3. Solvent cleaning with a residue-free solvent is recommended as the final step to aid in adhesion.

Mixing:

1. Measure 2 parts 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.
2. If resin and hardener temperatures are 15 °C or below, preheat resin only to about 32 °C but not to exceed 38 °C.

Application Method:

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 25 °C the working time is 10 minutes. Working and cure time depend on temperature and mass - the higher the temperature and the larger the mass, the faster the cure.

Caution: Use approved, positive-pressure, supplied-air respirator when welding or torch cutting near cured compound. Use approved self-contained breathing apparatus when burning, welding, or torch cutting indoors near cured compound. Use approved respirator for dusts and mists when grinding or machining cured compound. **DO NOT** use open flame on compound. See other cautions on Material Safety Data Sheet.

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^{LMS}

LMS dated July 3, 2001 (Resin) and LMS dated July 3, 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.

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.

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 1.2