

LOCTITE[®] PC 9313[™]

Known as NORDBAK HIGH IMPACT WEARING COMPOUND
August 2019

PRODUCT DESCRIPTION

LOCTITE[®] PC 9313[™] provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (Resin)	Grey
Appearance (Hardener)	Dark grey
Appearance (Mixed)	Grey paste
Components	Two part - Resin & Hardener
Mix Ratio, (by weight) Resin : Hardener	2 : 1
Mix Ratio, (by volume) Resin : Hardener	2 : 1
Cure	Room temperature cure after mixing
Application	Protective coating
Application Temperature	10 to 40°C (50 to 104°F)
Specific Benefit	<ul style="list-style-type: none"> • Ceramic - filled for outstanding resistance to abrasion • Resists mild impact at 45° angles • Extends wear life - resists sliding abrasive wear and eliminates costly wear part inventory • Non sag - provides abrasion resistance on over-head and vertical surfaces

LOCTITE[®] PC 9313[™] is a two-part ceramic filled 100% solid epoxy resin system designed to protect, rebuild, and repair high wear areas of processing equipment. Typical applications include dredge pump liners, flumes, troughs, vibrating feeders, chutes & hoppers and other processing equipment that is exposed to both abrasion and impact under typical dry service temperatures of -29°C to +121°C.

TYPICAL CURING PERFORMANCE

Working Life

Working life, minutes @ 23 °C 30

Curing Properties

Full Cure Time @ 25 °C, hours 6
Coverage 0.8 m² @ 0.63 cm thick per 25 lb kit (8.75 ft² @ 0.25 in thick per 25 lb kit)

TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 1 week @ 25 °C

Physical Properties:

Compressive Strength, ASTM-D695	N/mm ² 83 (psi) (12,000)
Hardness (Shore D), ASTM D2240	85

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

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. Remove dirt, oil, grease etc with a suitable cleaner, e.g. high pressure water cleaning system using Loctite[®] SF 7840[™].
2. Blast all surfaces to be coated with a sharp edged angular grit to a depth of profile of 75 microns (100 mils), and a degree of cleanliness of Near White Metal (SIS SA 2½ /SSPC-SP 10).
3. After blasting, metal surfaces should be cleaned, e.g. with LOCTITE[®] 7611[™] and be coated before any oxidation or contamination takes place.
4. Metal that has been in contact with salt solutions, e.g. seawater, should be grit blasted and high-pressure water blasted, left for 24 hours to allow any salts in the metal to sweat to the surface. A test for chloride contamination should be performed. The procedure should be repeated until chloride concentration on the surface is below 40 ppm.

Mixing:

1. Measure 2 parts resin to 1 part hardener by volume or weight
2. Transfer measured quantities or entire kit onto a clean and dry mixing surface and mix together with a trowel until uniform in color
3. If mixing larger quantities, a spiral mixing blade attached to a high torque electric or pneumatic drill can be used
4. If resin and hardener temperatures are 15°C or below, preheat resin only to about 32°C but not to exceed 38°C

Application:

1. Apply fully mixed material to the prepared surface .
2. With gloved hand, take a 25mm (1in) ball of mixed material and rub the surface to apply a scratch coat. By wetting out the surface, it ensures the best possible surface contact and avoids air entrapment.
3. Build up to desired thickness (minimum 6 mm), avoid air entrapment.
4. At 25°C the working time is 30 minutes. Working and cure time depend on temperature and mass - the higher the temperature and the larger the mass, the faster the cure.
5. If a smooth surface is desired, apply a small amount of acetone or isopropyl alcohol to the compound and smooth using either a gloved hand or trowel, as the solvent prevents sticking. Do not use water as it produces a white film on the finished surface.

Inspection

- Visually inspect for pinholes and misses just after application.
- Once the coating has cured, repeat visual inspection to confirm it is free from pinholes, misses and mechanical damages.
- Control thickness of the coating, especially in the critical points.
- Perform a test with a holiday detector to confirm coating continuity.

Repairs

Any voids, pinholes, low thickness areas found in the coating should be repaired by lightly abrading, cleaning and applying additional product.

Clean up

1. Immediately after use clean tools with suitable cleaner, e.g. Loctite® SF 7611™ or a solvent such as acetone or isopropyl alcohol. Once cured, the material can only be removed mechanically.

Technical Tips for Working With Epoxies**Environmental Conditions**

- Relative humidity: <85%
- Ambient temperature: >15°C (60F) and rising
- Substrate temperature must always be 3°C (7F) higher than the dew point to avoid condensing moisture on parts.

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 or warm resin/hardener component(s) prior to mixing. Never use open flame
- Pre-heat repair surface until warm to the touch
- Tent working area to achieve suitable environmental conditions

To slow the cure of epoxies at high temperatures:

- Store epoxy at room temperature or cool resin/hardener component(s) prior to mixing
- Work during cool, morning hours and shade area from direct sun

Not for product specifications

The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

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 28°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:

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.

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Reference 0.0