Technical Data Sheet

LOCTITE® PC 7218™

Known as LOCTITE® 7218 NORDBAK WEARING COMPOUND
November 2019

PRODUCT DESCRIPTION

LOCTITE® PC 7218™ provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (Resin)	Grey
Appearance - Mixed	Grey
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	Coating / Wearing Compound
Application Temperature	10 to 40°C (50 to 104°F)
Service Temperature	120°C (248°F)
Specific Benefits	• Resurfacing and repairing of worn or corroded metal parts • Protecting metal surfaces against chemicals, abrasive and corrosive agents • Ceramic - filled for outstanding resistance to abrasion • Non sag - provides abrasion resistance on over-head and vertical surfaces

LOCTITE® PC 7218™ is a two-part ceramic filled epoxy paste designed to protect, rebuild and repair high wear areas of processing equipment. This product is typically used in applications with an operating range of -30 °C to 120 °C. Typical applications include cyclone and separator bodies, dust collectors and exhausters, pump liners and impellers, fan blades and housings, chutes and hoppers, elbows and transition points.

.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties:

Density @ 25 °C, ISO 1675, g/cm³	2.3
Viscosity	Paste

Part B Properties:

Density @ 25 °C, ISO 1675, g/cm³	2.4
Viscosity	Paste

Mixed Properties:

Density @ 25 °C, ISO 1675, g/cm³	2.3
Viscosity	Paste

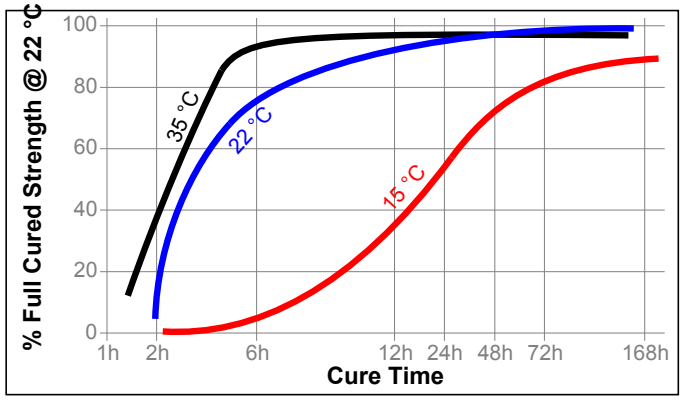
TYPICAL CURING PERFORMANCE

Curing Properties

Gel Time, ASTM D2471 minutes	87
Recoat Time @ 25 °C, hours	1

Cure Speed vs. Temperature

The graph below shows the shear strength developed with time on grit blasted mild steel and aluminum lap shears and tested according to ISO 4587.



TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 7 days @ 22°C

Physical Properties:

Glass Transition Temperature (Tg), °C TMA, ISO 11359-2	77
Coefficient of Thermal Expansion, ISO 11359-2, K^{-1}:	
Below Tg	23×10^{-6}
Above Tg	74×10^{-6}
Hardness (Shore D), ASTM D2240	90
Volume Shrinkage, ASTM D 792, %	2.1

Abrasion Properties:

Abrasion Resistance, ASTM G65 Method B	
Mass loss, g	0.33
Volume Loss, mm^3	144.8

Electrical Properties:

Dielectric strength, ASTM D149	3.39

Adhesive Properties:

Lap Shear Strength :		
Mild steel (grit blasted)	N/mm² (psi)	7.6 (1,102)
Stainless steel	N/mm² (psi)	8.4 (1,218)

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® 7840™ or Loctite® Natural Blue® cleaner/degreaser.
2. All skip welds, weld spatter, buckshot, and other surface roughness must be ground down; undercuts and pinholes must be ground and filled. All projections, sharp edges, high points and fillets must be ground to a radius of at least 3mm and all corners must be likewise rounded to maximize product performance.
3. Blast all surfaces to be coated with a sharp edged angular grit to a depth of profile of 75 to 100 microns (3 to 4 mils), and a degree of cleanliness of Near White Metal (SIS SA 2½ /SSPC-SP 10). For immersion service, a degree of cleanliness of White Metal (SIS SA 3/SSPC-SP 5) is required.
4. After blasting, metal surfaces should be cleaned, e.g. with LOCTITE ® SF 7070 and be coated before any oxidation or contamination takes place.
5. 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.

Application:

1. Film thickness per coat: minimum 6 mm (0.24 in).
2. Apply material to prepared surface by first forcing a thin layer deep into the texture of the substrate.
3. Then Immediately build up to the desired finished thickness.

Inspection:

- Visually inspect for pinholes and misses just after application.
- Once the coating has cured, repeat visual inspection to confirm absence of pinholes, voids or damaged areas..
- Control thickness of the coating, especially in the critical areas.
- Perform a test with a holiday detector to confirm coating continuity.

Caution: Use an approved, positive-pressure, supplied air respirator when welding or torch cutting near cured compound. **Do Not** use open flame on compound.

Color

Color variation is possible between the batches and will not affect the performance of the product.

Coverage

To achieve a 6 mm (.24 in) thickness, the coverage rate will be 0.1 m² (1.08 ft²) for 1 kg (2.2 lb), excluding overthickness, repairs, etc.

Repairs

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

Clean-up

Immediately after use clean tools with suitable cleaner, e.g. LOCTITE ® SF 7070 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. Please contact your local quality department for assistance and recommendations on specifications for this product.

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

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Disclaimer

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, 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 N/A