

LOCTITE[®] PC 7222 EUR

Known as LOCTITE[®] Nordbak[®] Wear Resistant Putty
October 2019

PRODUCT DESCRIPTION

LOCTITE[®] PC 7222 EUR provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (Resin)	Grey viscous liquid
Appearance (Hardener)	Grey
Appearance (Mixed)	Gray paste
Components	Two components - requires mixing
Mix Ratio, (by volume) Resin : Hardener	2 : 1
Mix Ratio, by weight - Resin : Hardener	2 : 1
Cure	Room temperature cure after mixing
Application	Europe - Coating
Application Temperature	15 to 40°C (59 to 104°F)
Service Temperature (Dry)	180°C (356°F)
Service Temperature (Wet)	90°C (194°F)
Specific Benefits	<ul style="list-style-type: none"> • Resurfacing and repairing of worn or corroded metal parts • Protecting metal surfaces against chemicals, abrasive and corrosive agents • Non sag - provides abrasion resistance on over-head and vertical surfaces • Renews worn surfaces fast - reduces downtime • Small ceramic bead filled - resists fine particle sliding abrasion, prolongs equipment life

LOCTITE[®] PC 7222 EUR contains ceramic fibers, giving this trowelable putty excellent wear and abrasion resistance with a smooth, low friction finish. It is ideal for filling pits and other irregularities in metal surfaces. This product is typically used in applications with an operating range of -30 °C to 105 °C (-20F to 225F). Typical applications include providing a smooth, protective abrasion resistant coating, on or in pipes, pumps elbows, transitions, butterfly valves, deflection plates, turbine blades and tanks.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Resin:

Density @ 21 °C	1.64
Viscosity, Brookfield - RVDV, 25 °C, mPa·s (cP) Spindle TF, speed 2.5 rpm	1,300,000 to 2,200,000

Flash Point - See SDS

Hardener:

Density @ 21 °C	1.77
Viscosity	Paste

Flash Point - See SDS

Mixed:

Density @ 21 °C	1.72
Viscosity	Paste
Vertical Sag Resistance @ 25 °C μm ISO 16862	1,268

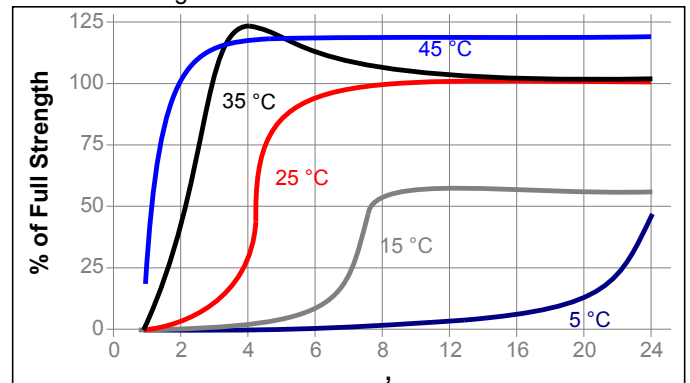
TYPICAL CURING PERFORMANCE

Curing Properties

Cure Time @ 25 °C, hours	8
Gel Time @ 25 °C, minutes	45 to 55
Working life, minutes	30

Cure Speed vs. Temperature

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



TYPICAL PROPERTIES OF CURED MATERIAL

Cured @ 25 °C except where noted

Physical Properties:

Tensile Strength, ISO 527-2	N/mm ²	21
	(psi)	(3,020)
Tensile Modulus, ASTM D638	N/mm ²	11,380
	(psi)	(1,650,420)
Shore Hardness, ISO 868, Shore D		85
Glass Transition Temperature, ISO 11357-2, °C		66
Heat Deflection, DIN EN ISO 75-2 °C		58
Coefficient of Thermal Conductivity W/(m·K)		0.83
ASTM F 433,		
Elongation, %		0.34
Volume Shrinkage, %		4.5
Coefficient of Thermal Expansion, ISO 11359-2 K ⁻¹ :		
Below Tg		34×10 ⁻⁰⁶
Above Tg		107×10 ⁻⁰⁶
Abrasion Resistance, ASTM D4060: mg		74
1 Kg load, CS-10 wheels, Weight of Material Lost		

Electrical Properties:

Volume Resistivity, IEC 60093, ohm-cm		0.72×10 ¹⁵
Surface Resistivity, IEC 60093, ohms		1.7×10 ¹⁵

TYPICAL PERFORMANCE OF CURED MATERIAL**Shear Strength**

Tensile Lap Shear Strength, :		
Grit Blasted Mild Steel (GBMS)	N/mm ²	13.3
	(psi)	(1,982)

TYPICAL ENVIRONMENTAL RESISTANCE**Dry Service Temperature Resistance,**

CSA-Z245.20-06/CSA-Z245.21-06 Rating 1, °C 180

Wet Service Temperature Resistance,

CSA-Z245.20-06/CSA-Z245.21-06 Rating 1, °C 90

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.

Metal:

- 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 or grinding is suitable.
- Solvent cleaning with a residue-free solvent is recommended at the final step to aid in adhesion.

Mixing

- Mix 2 parts resin to 1 part hardener by volume (2 to 1 by weight) or transfer entire kit onto a clean and dry mixing surface and mix thoroughly until color is consistent.

Application:

- Apply fully mixed material to the prepared surface .
- At 25 °C working time is 30 minutes and functional cure time is 6 hours.

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 mixed, 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).

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

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. 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.

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