Technical Data Sheet

LOCTITE® PC 9340

August 2013

PRODUCT DESCRIPTION

LOCTITE® PC 9340 provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (Resin)	Dark grey[LMS]
Appearance (Hardener)	Amber[LMS]
Appearance (Mixture)	Grey Liquid
Components	Two components - requires mixing
Mix Ratio, by weight - Resin : Hardener	4.5 : 1
Mix Ratio, (by volume) Resin : Hardener	100 : 13
Cure	Room temperature cure
Application	Chemical resistance
Specific Benefits	• Protects surfaces from extreme chemical attack • Easy to mix and use • Brush applied • Smooth finish protects against friction, turbulence and cavitation • Superior adhesion - bonds well to all metal substrates

LOCTITE® PC 9340 is designed to protect chemical storage and processing equipment against extreme corrosion caused by chemical exposure under heat. LOCTITE® PC 9340 is an impervious ceramic composite that offers an ultra smooth glossy surface. This technology significantly improves and reduces the surface friction that causes "boundary drag". The improved surface smoothness assists where applications require maximum fluid flow efficiency while protecting against abrasion, turbulance, corrosion/erosion, under typical service temperatures of -30 to 210°C (-20 to 410F). Typical applications include providing a smooth, protective abrasion resistant coating, repairing heat exchangers and condensers, lining tanks and chutes, resurfacing and repairing rudders and pintel housings, and repairing cooling pump impellers and butterfly valves.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Resin:

Viscosity, Brookfield - RV, 25 °C, mPa·s (cP):	
Spindle 5, speed 20 rpm	50,000 to 75,000[LMS]
Density @ 25 °C, g/cm³	1.6 to 1.9[LMS]
Flash Point - See SDS	

Hardener:

Viscosity, Brookfield - RV, 25 °C, mPa·s (cP):	
Spindle 6, speed 20 rpm	1,200 to 2,500[LMS]
Density @ 25 °C, g/cm³	1.01 to 1.1[LMS]
Flash Point - See SDS	

Mixed Properties:

Viscosity, Brookfield - RV, 25 °C, mPa·s (cP):	
Spindle 5, speed 20 rpm	20,000 to 40,000
Coverage	6.8 m² @ 0.5 mm thick/5.5 kg (74 ft² @ 20 mil thick/12 lb)
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Curing Properties

Gel Time @ 25 °C, minutes:	
400 g mass	50 to 90[LMS]
Recoat Time @ 25 °C, hours	0 to 4

TYPICAL PROPERTIES OF CURED MATERIAL

After 24 hours @ 25 °C followed by 1 hour @ 100 °C

Wet Service Temperature Resistance, °C	130
Dry Service Temperature Resistance, °C	210

Physical Properties:

Shore Hardness, ISO 868, Shore D:	
24 hours @ 25 °C	85
24 hours @ 25 °C, followed by 1 hour @ 130 °C	88

TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength :

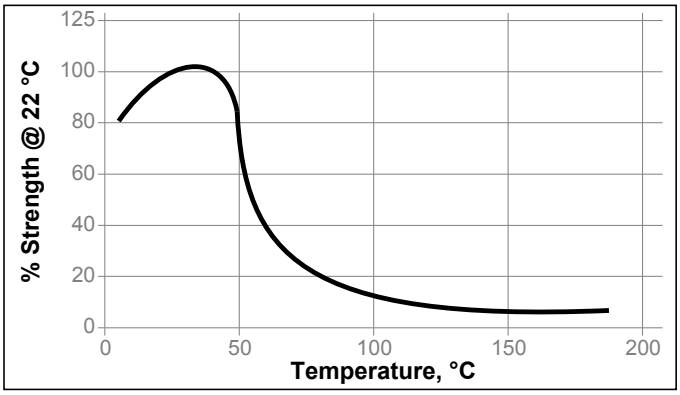
Grit Blasted Mild Steel (GBMS)	N/mm² 18.2 (psi) (2,650)

TYPICAL ENVIRONMENTAL RESISTANCE

Lap Shear Strength :

Grit Blasted Mild Steel (GBMS)

Hot Strength
Tested at temperature



Environmental Aging - Effect on bulk properties
Cured for 24 hours @ 25°C followed by 1 hour @ 100 °C, on grit blasted mild steel, 1 mm thick film
Properties after 100 hours in noted environment and conditions

Environment	Pull Strength (Kgf/cm)	% Weight Gain
Control	27.4	0
Salt spray, 35°C	22.2	0
Brake Oil, 22°C	22.4	0
Engine Oil, 120°C	22.2	<0.2
Gear Oil, 120°C	22.4	<0.2

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:
1. 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
2. Solvent cleaning with a residue-free solvent is recommended at the final step to aid in adhesion

Mixing:
1. Material temperature should be between 18 to 27 °C .
2. Mix the entire contents of resin and hardener. If smaller amounts are required, mix 100 parts resin to 13 parts hardener by volume, or 4.5 parts resin to 1 Parts hardener by weight.
3. Mix vigorously, 3 to 5 minutes, until a uniform color is obtained.

Application
1. Apply fully mixed material to the prepared surface .
2. Use a suitable notched trowel, brush or roller for application.
3. A coating thickness of 500 to 750 µm can be achieved in a second coat.
4. Allow the coating to cure for 24 hours at room temperature before heat curing to avoid sagging.
5. Heat cure the coating for 1 hour at 100°C to achieve desired chemical resistance. (Contact local Sales Engineer or Technical Service Engineer for assistance).

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

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 November 29, 2012 (Resin) and LMS dated November 29, 2012 (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. 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 Henkel 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

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Reference 1.1