Technical Data Sheet

LOCTITE PC 7336

November 2023

Product description

LOCTITE PC 7336 provides the following product characteristics:

Technology	Epoxy
Chemical type	Epoxy
Appearance (resin)	Paste - light grey
Appearance (hardener)	Paste - dark grey
Appearance (mixed)	Paste - grey
Components	Two components – resin & hardener
Mix Ratio, (by weight) resin : hardener	4 : 1
Mix Ratio, (by volume) resin : hardener	4 : 1
Cure	Post cure after RT cure
Application	Protective coating
Application temperature	10°C to 40°C (60°F to 104°F)
Service temperature	-30°C to 232°C (-22°F to 450°F)
Specific benefits	• Silicon carbide filled for outstanding resistance to erosion. • High cross link polymer matrix - provides chemical resistance. • Easy to mix and use - renews worn surfaces fast, reduces downtime. • Extends wear life - resists sliding abrasive wear, slurry erosion and eliminates costly wear component inventory. • Non sag - provides abrasion resistance on over-head and vertical surfaces. • Health and Safety friendly CMR free green version.

LOCTITE PC 7336 is a two-component silicon carbide and ceramic bead filled 100% solid epoxy resin system designed to protect, rebuild and repair high wear areas of processing equipment, such as ducts, cyclones, chutes and others that require protection from fine particle abrasion at elevated temperature.

Typical properties of uncured material

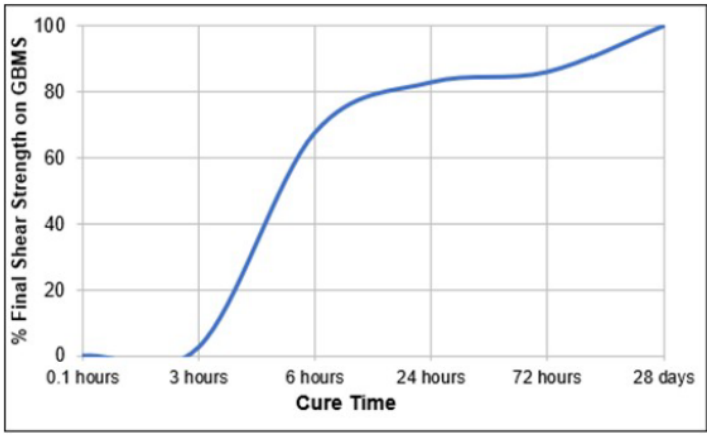
Resin	
Specific Gravity @ 23°C	2.19
Hardener	
Specific Gravity @ 23°C	2.10
Mixed	
Specific Gravity @ 23°C	2.11

Typical curing performance

Curing @ 23°C	
Working time, minutes	30
Curing time, hours @23°C + 2 hours @148°C	6

Cure speed vs. time

The graph below shows the shear strength developed with time @ 23°C on grit blasted mild steel lap shears and tested according to ASTM D 1002.



Typical performance of cured material
Cured @ 148°C for 2 hours followed by cure @ 23°C for 48 hours

Physical properties:

Glass transition temperature (Tg),°C TMA, ISO 11359-2		102
Shore hardness, ASTM D 695, Durometer D		91
Compressive Strength, ASTM D 695	N/mm^2 (psi)	116 (17,000)
Compressive Modulus, ASTM D 695	N/mm^2 (psi)	3,280 (470,000)

Adhesive properties

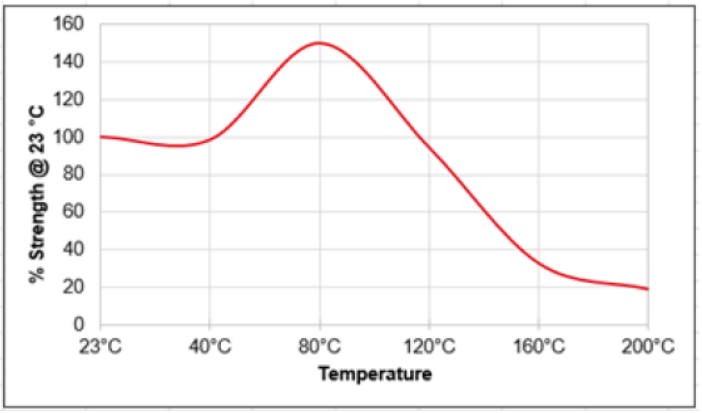
Lap Shear Strength , ASTM D1002		
Mild steel (grit blasted)	N/mm^2 (psi)	12.8 (1,900)
Mild steel (non-grit blasted)	N/mm^2 (psi)	9.2 (1,300)

Abrasion Properties

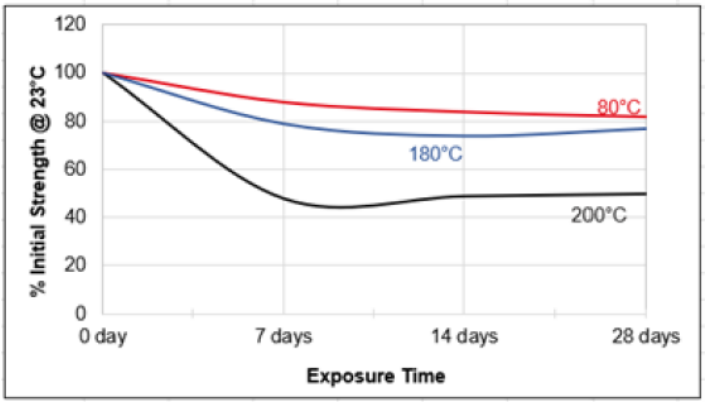
Dry abrasion Test (weight loss), %	
ASTM G65, Speed 100rpm, revolution 200, Load 5 kg, sand flow 355g/min	0.15
Slurry abrasion test (Weight loss),%	
ASTM B611, Speed 100rpm, revolution 300, Load 10.09kg	0.56
Miller test (Weight loss),%	
ASTM G75, load on each arm 22.4N, speed 48rpm	
2 hours	1.37
4 hours	1.62
6 hours	1.72
Gas Jet Erosion Test (Weight loss),%	
ASTM G76, Erodent discharge 2mg/min, Erodent velocity 72m/sec, test duration 15 min, Erodent consumed 30000mg	
Angle 45°	0.05
Angle 90°	0.08

TYPICAL ENVIRONMENTAL RESISTANCE
Cured @ 148°C for 2 hours followed by cure @ 23°C for 48 hours
Lap Shear Strength, ASTM D 1002, mild steel (grit glasted)

Hot strength
Tested at temperature on non-grit blasted mild steel



Heat Aging
Aged at temperature indicated and tested @ 23 °C.



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.

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®cleaner/degreaser.
2. All skip welds, weld spatter, buckshot, and other surfaceroughness 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 and a degree of cleanliness of Near White Metal (SIS SA 2½ /SSPC-SP 10).
4. After blasting, metal surfaces should be cleaned with solvent based, residue free cleaner, 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 24hours 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 50mg/m^2 (5µg/cm^2). Then blast and clean the surface as described on point 3 and 4 above.

Mixing

1. Measure 4 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 30°C but not to exceed 40°C.

Application

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 23°C the working time is 30 minutes. Functional cure time is 6 hours, post cure at 148°C for 2 hours.

Inspection

1. Visually inspect for pinholes and voids just after application.
2. Once the coating has cured, repeat visual inspection to confirm absence of pinholes, voids, or damaged areas.
3. Control thickness of the coating, especially in the critical points.
4. 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 further product.

Clean-up

Immediately after use, clean tools with LOCTITE®solvent based cleaner. Once cured, the material can only be removed mechanically.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product package 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.

Product specification

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.

Approval and certificate

Please contact Henkel representative for related approval or certificate of this product.

Data ranges

The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.
Temperature/Humidity Ranges: 23°C / 50% RH = 23±2°C / 50±5% RH

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

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