

LOCTITE[®] PC 7337[™]

June 2020

PRODUCT DESCRIPTION

 LOCTITE[®] PC 7337[™] provides the following product characteristics:

Technology	Epoxy/Silicone Hybrid
Chemical Type	Epoxy/Silicone Hybrid
Appearance (Resin)	Liquid, black
Appearance (Hardener)	Liquid, clear
Appearance (Mixture)	Liquid, black
Components	Two components – resin & hardener
Mix Ratio, by weight - Resin : Hardener	100 : 50
Mix Ratio, by volume - Resin : Hardener	100 : 75
Cure	Room temperature cure after mixing
Application	Coating
Application Temperature	10°C to 40°C (50°F to 104°F)
Service Temperature (Dry)	150°C (302°F)
Specific Benefits	<ul style="list-style-type: none"> Protecting parts against sticking of fine particles on the surface Protecting metal surfaces against abrasion due to sticking of particles Easy to mix and apply (single coat system) Produce high glossy frictionless surface Excellent adhesion on metal

LOCTITE[®] PC 7337[™] is a two component ultra-smooth, low surface energy, hydrophobic, anti-stick coating with increased abrasion resistance and lower viscosity for a thinner coating. LOCTITE[®] PC 7337[™] is designed to protect surfaces against sticking of fine particles which can result in frequent equipment downtime for cleaning or dynamic unbalancing & wear of rotating equipment. Its low surface energy & excellent adhesion on clean surfaces increases efficiency of equipment and long-lasting protection. Typical applications include protecting induced/forced draught fan impellers, blowers, fan housings, material handling buckets, chutes, hoppers, idler, & air ducts etc.

TYPICAL PROPERTIES OF UNCURED MATERIAL
Resin:

Specific Gravity @ 23°C	1.7
Viscosity @ 25°C, mPa·s (cP) Spindle 5, Speed 10 rpm	120,000

Hardener:

Specific Gravity @ 23°C	1.1
Viscosity @ 25°C, mPa·s (cP) Spindle 1, Speed 100 rpm	240

Mixed:

Specific Gravity @ 23°C	1.4
Viscosity @ 25°C, mPa·s (cP) Spindle 5, Speed 10 rpm	11,000

TYPICAL CURING PERFORMANCE

Cured @ 23°C, 50% RH	
Pot life (100g mass), minutes ISO 9514	35
Recoat Time, minutes	90
Touch dry cure, 250 micron, minutes	190
Full cure (150g mass), hours	24

TYPICAL PERFORMANCE OF CURED MATERIAL

Cured for 1 week @ 23 °C, 50% RH

Physical Properties

Shore Hardness, Durometer D ASTM D2240		71
Surface Energy Value, ASTM D 7334,	mN/m	23
Surface contact angle, ASTM D 7334,	Deg.	106
Coefficient of friction value, ASTM 1894		0.12

Abrasion Properties

Taber Abrasion Resistance, ASTM D4060: 1 Kg load, CS-17 wheels, 1,000 cycles (Dry)	mg	9
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Adhesive Properties

Lap Shear Strength, ASTM D1002:		
Aluminum	N/mm ² (psi)	8 (1,100)
Mild steel (grit blasted)	N/mm ² (psi)	9 (1,300)
stainless steel	N/mm ² (psi)	10 (1,400)
Pull Off Adhesion, Mild Steel ASTM D4541	N/mm ² (psi)	12 (1,700)

TYPICAL ENVIRONMENTAL RESISTANCE
Dry Service Temperature Resistance,

CSA-Z245.20-06/CSA-Z245.21-06 Rating 1	°C	150
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Rating 1: cannot be removed cleanly
Rating 2: less than 50% can be removed

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.

- Remove dirt, oil, grease etc with a suitable cleaner, e.g. high pressure water cleaning system using Loctite® cleaner/degreaser.
- 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.
- Blast all surfaces to be coated with a sharp edged angular grit to a depth of profile of 40 to 60 microns (2 to 3 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. Alternately power tool cleaning methods can be used such as bristle blasting, buffing or equivalent for less severe applications.
- After blasting, metal surfaces should be cleaned, e.g. with a LOCTITE® solvent based, residue free cleaner, and be coated before any oxidation or contamination takes place.
- 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 30mg/m³ (3µg/cm³). Then blast and clean the surface as described on point 3 and 4 above.

Application

- Add hardener content to Resin in a mixed ratio of 100:50 by weight (100 :75 by volume), mix it thoroughly until the uniform color is obtained.
- Film thickness per coat: 250 microns (8 mils). Single coats is recommended without any pin holes.
- Additional coat application may be carried out within the recoat time, If final thickness cannot be achieved or any void spot or pinholes are observed or if surface is pitted. If this time has elapsed, light abrasive scratching is required, followed by a solvent wash to remove any abrasive residues. .
- Ambient and substrate temperature range: 15 to 40 °C (59 to 104 °F).
- Relative humidity: 85 %; substrate temperature must always be 3 °C higher than the dew point.
- Cure time is 24 hours.
- Apply material to prepared surface by first forcing a thin layer deep into the texture of the substrate.
- Then immediately build up to the desired finished thickness.

Inspection

- Visually inspect for pinholes and voids 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.

Color

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

Coverage

To achieve a 0.25 millimeter (10 mils) thickness, the coverage rate will be 2.6 m² (28 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 a Loctite® solvent base 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 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.

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

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\mu\text{m} / 25.4 = \text{mil}$

$\text{N} \times 0.225 = \text{lb}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{N/mm}^2 \times 145 = \text{psi}$

$\text{MPa} \times 145 = \text{psi}$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$

$\text{mPa}\cdot\text{s} = \text{cP}$

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. 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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