

# LOCTITE<sup>®</sup> PC 7280™

January 2018

## PRODUCT DESCRIPTION

LOCTITE<sup>®</sup> PC 7280™ provides the following product characteristics:

<b>Technology</b>	Polyurea
<b>Chemical Type</b>	MDI Prepolymer
<b>Appearance - Part A</b>	Black
<b>Appearance - Part B</b>	Beige
<b>Mix Ratio, by volume - Resin : Hardener</b>	1 : 1
<b>Cure</b>	Room temperature cure after mixing
<b>Application</b>	Coating
<b>Application Temperature</b>	10 to 40°C (50 to 104°F)
<b>Service Temperature (Dry)</b>	130°C
<b>Service Temperature (Wet)</b>	60°C
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• Fast curing</li> <li>• Elastomeric</li> <li>• Provides protection for metal and/or concrete</li> </ul>

LOCTITE<sup>®</sup> PC 7280™ is a solvent-free, elastomeric, sprayable polyurea coating. It is designed for the protection of concrete, metal, and other materials against turbulence, chemicals, abrasive and corrosive agents. This product is flexible, crack bridging, and can be used to restore or protect against shocks, vibrations, distortions, or thermal expansions. Typical applications include rebuilding or resurfacing tank and container lining, structure protection for wear and tear parts, vibration stoker, stone chip protection, loading ramps, hoisting platform, truck bed lining, and flooring.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

### Part A

Density @ 20 °C, ISO 2811-1, g/cm <sup>3</sup>	1.09 to 1.13
Viscosity @ 25°C, mPa·s (cP)	600 to 1,000

### Part B

Density @ 20 °C, ISO 2811-1, g/cm <sup>3</sup>	1.02 to 1.06
Viscosity @ 25°C, mPa·s (cP)	500 to 900

## Mixed

Density @ 20 °C, ISO 1183, g/cm <sup>3</sup>	0.93 to 0.97
Flash Point - See SDS	

## TYPICAL CURING PERFORMANCE

### Curing Properties

Gel Time @ 20 °C, seconds	60
Tack Free Time @ 20 °C, minutes	5 to 6
Recoat Time, hours	0 to 12
Cure Time, hours:	
Walkable	1
Mechanical	2
Chemical	12

## TYPICAL PROPERTIES OF CURED MATERIAL

### Physical Properties:

Tensile Strength, ISO 37-2005	N/mm <sup>2</sup> ≥15 (psi) 2,175
Tensile Modulus, at 100% elongation, ISO 37-2005	N/mm <sup>2</sup> ≥8 (psi) 1,160
Tensile Modulus, at 300% elongation, ISO 37-2005	N/mm <sup>2</sup> ≥12 (psi) 1,740
Elongation, at break, ISO 37-2005, %	≥370
Hardness (Shore D)	40 to 50
Tear Growth Resistance, N/mm, ISO 34-1	≥35
Peel Strength, :	
Concrete	N/mm ≥4 (lb/in) (23)
Steel	N/mm ≥8 (lb/in) (46)
Pull-off Strength, ISO 4624:	
Concrete	N/mm <sup>2</sup> ≥1.5 (psi) 218
Steel	N/mm <sup>2</sup> ≥6 (psi) 870
Taber Abrasion, ASTM D4060, mg Wheel CS17, 1kg, 1000 cycles	<11
Taber Abrasion, ASTM D4060, mg Wheel H18, 1kg, 1000 cycles	<50
Volume Abrasion, ISO 4649, mm <sup>3</sup>	≤250
Rebound resiliency, %	≥27
Heat Conductivity, W/m <sup>2</sup> *K	0.25
Sound Absorption, dB (A)	>10

### Electrical Properties:

Surface Resistivity, IEC 60167,	≥1.0×10 <sup>11</sup>
Volume Resistivity, IEC 60093,	≥10×10 <sup>11</sup>

**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:**

1. Remove dirt, oil, grease etc with a suitable cleaner, e.g. high pressure water cleaning system using Loctite® SF 7840™ or Loctite® Natural Blue® cleaner/degreaser.
2. All skip welds, weld splatter, buckshot, and other surface roughness must be ground down and smoothed; undercuts and pinholes must be ground smooth and filled. All projections, sharp edges, high points and fillets must be ground smooth to a radius of at least 3 mm (metal) and 6 mm (concrete) 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 ≥60 microns ( 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 7063™ or Loctite® ODC Free Cleaner and Degreaser, 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.

**Application:**

- Ambient and substrate temperature range: 10 to 40 °C.
- Relative humidity: <98 %; substrate temperature must always be 3 °C higher than the dew point.
- The metal and concrete (less than 10% moisture) surface is to be primed with Loctite® 7462™ or Loctite® 7460™. Please see technical information sheet of Loctite® 7462™ or Loctite® 7460™ for further instructions.
- Shake cartridge thoroughly before use.
- Pre-heat cartridge to 35 to 45°C before use.
- Minimum film thickness per coat: 1 mm.
- For recoat time or repairs more than 8 hours, Loctite® 7460™ solvent based is recommended to be used to prime existing polyuria coating before re-coating. Please see technical information sheet of Loctite® 7460™ for further instructions.

**Mixing**

- The product is delivered ready to use in a 1500 ml dual cartridge system and can be applied with a standard pneumatic hand gun with spray adapter in connection with compressor that guarantee 6-8 bar constant pressure with an air volume production of at least 240 l/min. The compressed air needs to be free of oil and water.

**Inspection**

- Visually inspect for pinholes and misses just after application.
- Once the coating has cured, repeat visual inspection to confirm freedom from pinholes, misses and mechanical damages.
- Control thickness of the coating, especially in the critical points.

**Coverage**

To achieve a 1 mm (.04 in) thickness, the coverage rate will be 1.4 m<sup>2</sup> (15.07 ft<sup>2</sup>) for 1 cartridge of 1.61 kg (3.55 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.

**Color**

Discoloration may occur when exposed to intense sunlight and will not affect the performance of the product

**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.

**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.

**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, Resin Technology Group, Inc., 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 and/or registered trademarks of Henkel and its affiliates in the U.S. and elsewhere.

### Storage

Store product in the unopened container in a dry location. Material removed from containers may be contaminated during use. Do not return liquid to original container. Storage information may be indicated on the product container labeling. **Optimal Storage: 10 °C to 30 °C. Storage below 10 °C or greater than 30 °C can adversely affect product properties.**

Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those recommended. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

### Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\mu\text{m} / 25.4 = \text{mil}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{MPa} \times 145 = \text{psi}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

Reference 0.0