Technical Data Sheet

LOCTITE® PC 9020 EU

Known as LOCTITE® 9020
December 2025

Product description

LOCTITE® PC 9020 EU provides the following product characteristics:

Technology	Epoxy
Chemical type	Epoxy
Appearance (resin)	Off-white
Appearance (hardener)	Clear blue
Appearance (mixed)	Pale blue
Components	Two components – resin & hardener
Mix Ratio, (by weight) resin : hardener	100 : 6.66
Mix Ratio, (by volume) resin : hardener	100 : 11.93
Cure	Room temperature cure after mixing
Application	Crusher repair products
Application temperature	15°C to 65°C (59°F to 149°F)
Specific benefits	• Easy and safe to use • High compression strength • Low odor • Minimal shrinkage • Excellent impact resistance

LOCTITE® PC 9020 EU is an epoxy system for backing wear metal in gyratory and cone crushers. LOCTITE® PC 9020 EU is designed to eliminate the need for traditional melting or special equipment, and it has high hydrolytic stability (low water absorption). Its high volumetric stability eliminates the formation of gaps between backing and liners or support structures, allowing for fast return to service.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Resin:	
Specific Gravity @ 23°C	1.8
Viscosity, Brookfield - RVT @ 25 °C, mPa·s (cP): Spindle 6, speed 20 rpm	28 000
Hardener:	
Specific Gravity @ 23°C	1
Viscosity, Brookfield - RVT @ 25 °C, mPa·s (cP): Spindle 1, speed 50 rpm	100
Mixed	
Specific gravity @ 23°C	1.7

TYPICAL CURING PERFORMANCE

Curing @ 25°C, 50%RH

Gel time, 400g mass, ASTM D2471, minutes	15

TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 1 week @ 23 °C

Physical properties:

Glass transition temperature (Tg),°C TMA, ISO 11359-2		60
Shore Hardness, ISO 868, Durometer D		84
Tensile strength, ISO 527-2	N/mm^2 (psi)	37 (5 455)
Tensile Modulus, ISO 527-2	N/mm^2 (psi)	9370 (1 359 000)
Compressive strength, ISO 604	N/mm^2 (psi)	>104 (>15 100)
Compressive modulus, ISO 604	N/mm^2 (psi)	11 412 (1 655 170)
Flexural Strength, ISO 178	N/mm^2 (psi)	112 (16 250)
Flexural modulus , ISO 178	N/mm^2 (psi)	9496 (1 377 250)

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. If a bond to the substrate is desired, remove dirt, oil, grease etc. with a suitable cleaner, e.g. high-pressure water cleaning system using LOCTITE® cleaner/degreaser, from all metallic parts that come in contact with LOCTITE® PC 9020 EU.
2. If easier removal of worn liners is desired, coat the appropriate surfaces with a release agent such as grease or light oil.
3. Seal all gaps, hook holds, bottom joints, and protected threaded parts of shafts where necessary.

Preparation of Backing Material
1. LOCTITE® PC 9020 EU and substrate must be between 15 to 35°C (60 to 95°F) before application:

    a. Lower temperatures increase the working time, but the increase in viscosity makes the material harder to pour.

    b. Higher temperatures reduce the working time, but the product is easier to pour into the crusher.

Mixing
1. Pre-mix resin approximately 1 minute.
2. Shake hardener thoroughly mixing its contents.
3. While mixing resin, add hardener contents.
4. As the product is mixed, blue streaks will appear in the product.
5. Continue mixing until the entire contents of the pail are pale blue, making sure to scrape the sides and bottom of the pail thoroughly until there are no signs of yellowish-green material.

Application
1. Pour mixture immediately after mixing. Pour at one place and allow LOCTITE® PC 9020 EU to fill the cavity and push out the air in front of it. Use dam (tin, cardboard, clay, etc.) to direct the flow when necessary. Any unmixed resin (different color clinging to the sides and bottom) should not be drained into the crusher.
2. Succeeding kits may be mixed and poured individually as needed. LOCTITE® PC 9020 EU adheres to itself.

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
Environmental Conditions
- Relative humidity: <85%
- Ambient temperature: >15°C (60°F) and rising
- Substrate temperature must always be 3°C (37°F) higher than the dew point to avoid condensing moisture on parts.

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).

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

Disclaimer
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, 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 of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

Reference 0.0