Technical Data Sheet

LOCTITE® PU EV 9790

LOCTITE® PU EV 9790 April 2026

Product description

LOCTITE® PU EV 9790 provides the following product characteristics:

Technology	2C polyurethane gasket adhesive
Chemical type	Polyurethane
Appearance (uncured)	Black
Components	Two-component – requires no external mixing
Viscosity	Paste
Cure	Two-component
Application	EV battery housing gasketing
Environmental temperature at application	5 to 45°C
Material application temperature	60 to 70°C
In service temperature	-40 to 80°C
Short exposure (up to 1 hr)	120°C
Specific benefits	• Fast sealing performance • Moisture independent curing • Rapid and precise application

LOCTITE® PU EV 9790 is a two-component polyurethane housing sealant. This system enables consistent curing in lower temperatures and lower humidity environments. It cures independently from environmental conditions by using a B-component which will be mixed automatically to the A-component during application.

LOCTITE® PU EV 9790 is suitable for EV battery housing sealing against steel (with primer/activator), aluminum or various types of composites (e.g. sheet molding composites based on carbon fibers and glass fibers) found in today's assemblies.

Typical properties of uncured material

As dispensed	
Specific gravity @ 23°C	~1.2

Typical curing performance

Work time @23°C (from material application until housing assembly)	~25

Typical performance of cured material

Cured for 7 days @ 23 °C, 50% RH

Physical properties	
Hardness, Durometer A DIN53505	~60
Elongation at break, % DIN53505	~370
Tensile strength, N/mm^2 DIN53505	~8.5

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).

Direction for use

Important

For application of primers, fillers, primer fillers, paints or other coatings, technical guidelines from manufacturers have to be considered and followed.

Preparation

1. The substrate to be bonded must be dry and free from oil, dust, grease, and other contaminations.
2. Check the flange for damage or scratches and make sure it fits.
3. To obtain an optimal adhesion on the new battery cover flanges (or one without previous sealant adhered) we recommend TEROSON® VR 10.

Pre-treatment

1. Wipe off surface with a lint free cloth and TEROSON® SF 7063.
2. Abrade bond line with a smooth abrasive pad.
3. Wipe off surface again with a lint-free cloth and TEROSON® VR 10 and let dry approximately TEROSON® BOND SPONGE minutes.

Priming

1. Before opening the TEROSON® BOND ALL-IN-ONE PRIMER bottle, shake well (at least 1 minute).
2. Apply primer with wool dauber in one pass on the bond line (allow to flash off for 2 minutes).
3. When reusing battery housings which already have a PU-based adhesive/sealant applied, the adhesive layer can be cut back with a sharp blade and re-bonded directly with LOCTITE® PU EV 9780 within 2 hours. NOTE: Provided the remaining bead is not contaminated with dust or grease, the old cut-back adhesive bead is the best base layer for the LOCTITE® PU EV 9780 adhesive sealant.
4. If more than 2 hours pass between cutting back and applying LOCTITE® PU EV 9780, the old cut-back adhesive bead must be pretreated with TEROSON® BOND ALL-IN-ONE PRIMER.
5. To pretreat old cut-back bead, apply a thin layer of TEROSON® BOND ALL-IN-ONE PRIMER to the remaining bead using a wool dauber or TEROSON® BOND SPONGE and allow to evaporate for 10 minutes.
6. Next, apply LOCTITE® PU EV 9780 as usual, but taking into consideration the layer thickness of the remaining adhesive bead.

Application

1. The EV Battery housing gasketing adhesive LOCTITE® PU EV 9790 is best applied from cartridges using commercial equipment such as hand, battery driven or air-pressure dispensers with a piston rod.
2. Prior to its use, the cartridge of LOCTITE® PU EV 9790 must be warmed to above 60°C if the ambient temperature is too low making it difficult to dispense the adhesive. There are 2 heating devices which could be used. In the TEROSON® ET CR HEATING BOX 2PC minimum 30 minutes or in the TEROSON® ET CR FC HEATINGBOX device minimum 60 minutes.
3. After piercing the top membrane, the B-component has to be screwed on the cartridge thread and application must be started immediately.
4. For application, we recommend using the dispenser TEROSON® POWERLINE II. Make sure to adjust the working pressure to 9 to 11 bar effective at the cartridge piston!
5. Application should be performed ideally in one continuous bead, if possible.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.
Optimal storage: 10°C to 25°C. Storage below 5°C or greater than 30°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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