

TEROSON PU 8594 HMLC

June 2019

Adhesive with high shear modulus and low conductivity

PRODUCT DESCRIPTION

Technology	1K- Polyurethane adhesive free from PVC and solvents
Product Type	Direct Glazing for repair
In driving condition with airbag	1 hour after the window has been bonded (Crash-Norm: FMVSS 208 / 212 (50 km/h, 100% frontal))

The direct glazing adhesive is outstanding for the following properties:

- Very good sag resistance
- High cure rate
- High elastic and shear strength, even after aging
- Very low conductivity
- Good adhesion to the remaining material
- High UV resistance in connection with primer/activator
- High shear modulus
- Excellent adhesion to glass, glass with the ceramic coating, encapsulation and to painted surfaces, in connection with primer/activator

Application Areas:

TEROSON PU 8594 HMLC is used for the bonding of front, rear and side screens to the body of motor-, utility-, special- and rail vehicles.

TECHNICAL DATA

(Typical Test Results)

Colour:	black
Odour:	weak
Consistency:	smooth, sag-resistant, pasty
Density g/cm ³ :	approx. 1.24
Solids:	100 %
Curing mechanism:	humidity curing
Cure rate: (DIN 50014; 23°C, 50% rh)	approx. 3 to 4 mm / 24 h
Shore-A-hardness: (DIN 53505)	approx. 60
Tensile strength: (DIN 53504)	approx. 8.5 MPa
Stress: (DIN 53504)	approx. 3 MPa at 100 % elongation
Shear modulus: (according to DIN 54451)	approx. 2.7 MPa
Elongation at break: (DIN 53504)	approx. 350 %
Shear strength: after 24 h (DIN 54451)	3 MPa

Layer thickness 5mm based on DIN 54451	5 to 6 MPa (fully cured)
Specific forward resistance: (ASTM D 257-99 / DIN IEC 60093)	approx. 1×10 ⁹ Ω cm
Volume change: (DIN 52451)	< 1 %
Glazing time*:	max. 15 min
Material application temperature, °C:	5 to 35
Environmental temperature at application, °C:	-10 to 45
In service temperature range, °C:	-40 to 90
Short exposure (up to 1 h), °C	120

* period of time between beginning of material application until inserting of the pane

Surface Preparation:

The substrates to be bonded must be dry and free from oil, dust, grease and other contaminations. Check new glass if it is correct and free of any damage. To obtain an optimal adhesion on the new screen we recommend 2 different surface preparation methods (solvent based, TEROSON VR 10 or waterborne, TEROSON VR 100):

1. Wipe off surface with a lint free cloth and TEROSON VR 10.
2. Abrade bondline with a smooth abrasive pad or wetted TEROSON ET Cleaning sponge.
3. Wipe off again surface with a lint free cloth and TEROSON VR 10.

Or

1. Spray on TEROSON VR 100 on the to be cleaned surface.
2. Abrade wetted bondline with TEROSON ET Cleaning sponge.
3. Dry off the bondline by wiping in one direction using a lint free cloth.

Evaporation time for both methods: 2 minutes.

Cleaning of the cut adhesive layer, remaining on the window aperture, is in general not necessary.

If, however, cleaning of this remaining layer is indispensable, an evaporation time of at least 5 minutes is mandatory.

Priming:

With the use of an applicator apply a thin layer of All-in-one primer TEROSON PU 8519P to the cleaned substrate surface.

Ensure the wet film should be 0.025 mm.

Let the primed surface evaporate for approx. 2 minutes before the direct glazing sealant is applied.

If a fresh bonding is made directly on the remaining material layer (left in the window cut-out of the body), this layer should not be primed within the first 2 hours after cutting back. But if the remaining layer is not used within the first 2 hours, it has to be activated with TEROSON PU 8519P. Provided that it is not contaminated with dust or grease, the remaining layer is the best adhesive surface, if TEROSON PU 8594 HMLC is used for the new bond.

If windows are bonded which have been pre-coated with a primer or PUR-based adhesive/sealant by the glass supplier, the primer TEROSON PU 8519P is also suitable to ensure the correct adherence of TEROSON PU 8594 HMLC to the pre-coating.

By means of an applicator, a thin layer of TEROSON PU 8519P is applied to the pre-coating. Following this, an evaporation time of approx. 2 minutes has to be observed. Subsequently, TEROSON PU 8594 HMLC is applied as usual, but taking into consideration the layer thickness of the pre-coating.

Processing:

The direct glazing sealant TEROSON PU 8594 HMLC is processed from the cartridge or foil pack using commercial equipment such as hand, battery driven or air-pressure guns with a piston rod.

Preliminary Statement:

Prior to use it is necessary to read the **Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed.

Classification:

Please refer to the corresponding **Material Safety Data Sheets** for details on:

Hazards identification
Transport information
Regulatory information

Storage:

Frost sensitive	no
Recommended storage temperature	5 to 25 °C
Shelf life	12 months foil pack 18 months aluminium cartridge

ADDITIONAL INFORMATION**Disclaimer:****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.

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