

## TEROSON PU 8591T

June 2014

### Direct Glazing adhesive excellent weathering stability

#### PRODUCT DESCRIPTION

<b>Technology</b>	<b>1K- Polyurethane adhesive</b> free from PVC and solvents	
<b>Product Type</b>	<b>Direct Glazing</b> for repair	
<b>In driving condition</b>	Weight	of Drive Away Time
recommendation for supported windscreens between 10°C - 25°C	Windscreens	
	< 40 kgs	2 hours
	41 – 75 kgs	4 hours
	76 – 100 kgs	6 hours
	> 100 kgs	24 hours

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
- Excellent adhesion to glass, glass with the ceramic coating, encapsulation and to painted surfaces, in connection with primer/activator
- High UV resistance in connection with primer/activator

#### APPLICATION AREAS

TEROSON PU 8591T is used for the bonding of front, rear and side screens to the body of motor-, utility-, special- and rail vehicles. Bonding of side windows made of single-pane glass or insulating glass in bus and rail coach manufacture. TEROSON PU 8591T is also used as a gap filler with non staining properties.

#### TECHNICAL DATA (Typical Test Results)

Colour	black
Odour	weak
Consistency	smooth, sag-resistant, pasty
Density g/cm <sup>3</sup>	approx. 1.27
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. 8.0 MPa

Stress (DIN 53504)	approx. 2 MPa at 100 % elongation
Shear modulus (according to DIN 54451)	approx. 2.0 MPa
Elongation at break (DIN 53504)	approx. 400 %
Shear strength after 24 h (DIN 54451)	2.0 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 <sup>8</sup> Ω cm
Volume change (DIN 52451)	< 1 %
Glazing time:*	max. 20 mins
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

#### PRELIMINARY STATEMENT

Prior to application 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.

#### SURFACE PRETREATMENT

The substrates to be bonded must be dry and free from oil, dust, grease and other dirt. Clean new glass thoroughly with TEROSON VR 100. Check new glass if it is correct and free of any damage. To obtain an optimal adhesion we recommend abrading the windscreen's bond line with a smooth abrasive pad in order to have a clean surface. Clean and pretreat the bonding surfaces with TEROSON VR 20 after abrading and allow to dry for 2 minutes. The layer remaining in the window cut-out need not to be cleaned. If, however, cleaning of this remaining layer is indispensable, an evaporation time of at least 2 minutes has to be observed before the sealant can be applied, since the adhesive surfaces must have fully dried.

# TEROSON PU 8591T

June 2014

## 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 8591T 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 All-in-one Primer TEROSON PU 8519P is also suitable to ensure the correct adherence of TEROSON PU 8591T 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. 15 minutes has to be observed. Subsequently, TEROSON PU 8591T is applied as usual, but taking into consideration the layer thickness of the pre-coating.

## PROCESSING

The direct glazing sealant TEROSON PU 8591T is processed from the foil packs using commercial equipment such as hand, battery driven or air-pressure guns. To prevent air being trapped at the gap filling operation, make sure that the nozzle tipp remains at all times in the applied material. Apply a thicker layer of TEROSON PU 8591T than is ultimately needed. The filler must project onto the glass. Then remove the bulk of the excess with an empty cartridge or a flexible plastic towel. To create the smooth, ultimate finish with TEROSON PU 8591T, treat gap filled material with TEROSON VR 20 or TEROSON PU SMOOTHING AGENT and smooth with a flexible plastic towel.

## STORAGE

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

## 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.

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

### Henkel AG & Co. KGaA

D-40191 Düsseldorf, Germany

Phone: +49-211-797-0

www.henkel.com

### Henkel Central Eastern Europe GmbH

A-1030 Wien, Austria

Phone: +43-1711-040

www.henkel.com



**TEROSON**

# TEROSON PU 8591T

June 2014

---

**Henkel & Cie AG**  
CH-4133 Pratteln, Switzerland  
Phone: +41-61-825-7000  
[www.henkel.com](http://www.henkel.com)

