



Terostat-8599

Moisture Curing, One-Component
 Direct Glazing Sealant for Repair Glazing of Vehicles
 Passive Safety 15 Minutes after Mounting of Windscreen
 Proven in Real Crash Test Using Opel Vectra with full
 Size Air Bags and Seat Belted Dummies

Basis: Polyurethane

Status: 2003-02-21

Product Description

Terostat-8599 is a one component, moisture curing Direct Glazing Sealant with excellent sag resistance based on polyurethane, which cures by reaction with moisture to a soft elastic product. The skin formation and curing times are dependent on humidity and temperature, and the curing time also depends on joint depth. By increasing the temperature and moisture these times can be reduced; low temperature as well as low moisture retard the process. Under the given conditions in use the high sag resistance is guaranteed for all humidities and temperatures.

The Direct Glazing Sealant demonstrates the following characteristics:

- very good sag resistance
- particular high position tack immediately after matching, i. e. no sagging of the panes (advantageous for large and heavy panes)
- excellent adhesion with Primer Terostat-8510 on glass, ceramic coated glass and on painted surfaces
- excellent adhesion on material residues
- high cure rate
- high UV resistance in connection with Primer Terostat-8510
- high shear strength, retained on ageing.

Application Areas

Bonding of front, rear and side screens to the body of passenger cars, trucks, forklift and tractor cabins as well as special vehicles. Single or double pane side window glazing in the bus and railway coach industry.

Technical Data

1. Terostat-8599

Colour:	black
Odour:	weak
Consistency:	smooth, sag-resistant paste
Density:	approx. 1.2 g/cm ³
Solids:	100 %
Curing mechanism:	moisture curing
Skin formation time:	approx. 20 mins
(DIN 50014 standard climate:	23°C, 50 % rh)
Cure rate:	approx. 4 mm/24 h
(DIN 50014 standard climate:	23°C, 50 % rh)
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:	approx. 2.0 MPa
Elongation to break (DIN 53504):	approx. 300 %
Shear strength:	approx. 1.5 MPa (after 24 h DIN 50014)
(thickness 5mm,	5–6 MPa (fully cured)

based on DIN EN 1465)	
Volume change (DIN 52451):	< 1 %
Glazing time:	maximum 15 mins *
Application temperature:	40°C to 60°C
In service temperature range:	-40°C to 90°C
Short exposure (up to 3 hr.):	120°C

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

2. Terostat-Primer-8510

Colour:	black
Density:	approx. 1.05 g/cm ³
Solids:	approx. 39 %
Optimum layer thickness:	50 µm wet
Drying time:	approx. 15 mins
Primer open time:	up to 6 hrs after application

3. Cartridge Warming Box

Weight:	approx. 300 g
Heating capacity at 230 V:	70W
Resistance:	approx. 530 Ω
Final temperature in cartridges:	maximum 65°C
Approval:	GS and VDE sign

Preliminary remark

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.

1. Cleaning

The surfaces to be bonded must be dry, free of oil, dust, grease and other contaminants. Glass or ceramic coatings as well as the painted surface are cleaned with Cleaner-FL. The residual cut layer (see below) should not be cleaned. If cleaning of this layer cannot be avoided, a **drying time of a minimum of 30 minutes** prior to sealant application has to be observed, because the adherents have to be absolutely dry.

2. Priming

Surface priming is carried out by a thin (ca. 0.05 mm wet) and even coating of Primer-8510 on the cleaned glass, ceramics or paint surface, using an applicator. The primed area must be allowed to air dry for ca. 15 minutes before applying the Direct Glazing Sealant.

Do not use a primer when the material is applied onto a bead of cut and cured adhesive/sealant left on the body flange. The cut surface – if not contaminated by dust or grease – provides an ideal substrate for application of fresh Terostat-8599.

3. Activation of pre-coated screens

Screens which have been pre-coated by the glass manufacturer with a PUR based adhesive/sealant must be treated with Activator Terostat-8525 to ensure trouble-free adhesion of Terostat-8599 on to the pre-coated layer.

Terostat-8525 is applied with a wool applicator in a thin layer and allowed to air dry for ca. 15 minutes. Terostat-8599 can then be applied in the normal manner but care must be exercised to take into account the 2 mm thickness of the pre-coating.

Screens pre-coated with PUR based adhesive/sealant are used for instance on many types of VW/ Audi vehicles.

4. Application

Prior to application Terostat-8599 is pre-heated in the Cartridge Warming Box for at least 15 minutes. This time is valid for a material temperature above 10°C, colder cartridges are heated accordingly longer (ca. extra 5 minutes at 5°C). Thereafter Terostat-8599 can be directly applied employing standard air or hand operated guns (air guns preferably with piston rod propulsion. Teroson recommends the use of

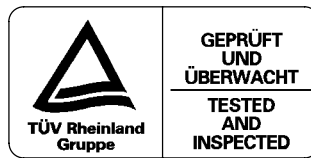
- Teleskop Pistol Power-Line Art.-No. 141.84 S
- Teroson Staku Hand Pressure Pistol Art.-No. 167.65 Y

When using the Teleskop Pistol Power-Line a minimum air pressure of 8 bar is necessary.

The instructions included in the Teroson Glazing Repair Set contain a detailed description of the repair operation.

Passive safety

Passive safety 15 minutes after mounting of windscreen proven in real crash test using Opel Vectra (model year '95) with full size-air bags and seat belted dummies:



The test result

Proven passive safety after real crash test

15 minutes after the repair glazing the front windscreen bond with Terostat-8599 demonstrated such high strength in the real crash test that the full-size air bags used in the test were able to shore themselves against the windscreen, thereby guaranteeing a **sufficient** protection of car passengers in accordance with US Standard FMVSS 208.

This means: According to the criteria for passive safety demanded by the Rhineland TÜV a passenger car is ready for driving 15 minutes after repair glazing.

The test vehicle

High strain on the windscreen bond on account of two full-sized air bags

As representative of the medium-sized range of cars, the Opel Vectra was chosen, being equipped as it is with two full-size air bags (driver's air bag, c. 70 l, front-seat passenger's air bag, c. 140 l).

Our product quality:

Monitoring by the Rhineland TÜV

Terostat-8599 was subjected by the Rhineland TÜV to a comprehensive product, application, environmental and production test, and will continue to be monitored in these terms. On the basis of the positive test result and the successfully completed real crash test, Terostat-8599 was awarded the **Rhineland TÜV certificate no. 9510542**.

Storage

Frost-sensitive	no
Recommended storage temp.	10°C to 25°C
Shelf-life	18 months in original packaging

Packaging

Cartridge	310 m	Art.-No. 130.52 M (D/GB/F/NL) IDH-No. 150736
Cartridge	310 m	Scandi-Code 249
Cartridge	310 m	Art.-No. 135.58 M (E/P/I/GR) IDH-No. 211726
Direct Glazing Repair Set	Set	Art.-No. 165.07 S (D/GB/F/NL) IDH-No. 150049

Applicator Set	25 pieces	Art.-No. 140.64 M (D/GB/F/NL/E/P/I/GR) IDH-No. 142245
Cartridge Warming Box:		Art.-No. 131.17 H IDH-No. 211556

**Hazard Indications/
Safety Recommendations/
Transport Regulations** see Safety Data Sheet

Important

The above data, particularly the recommendations for application and use of our products are based on our knowledge and experience. Due to different materials and conditions of application which are beyond our knowledge and control we recommend strongly to carry out sufficient tests in order to ensure that our products are suitable for the intended processes and applications. Except for wilful acts any liability based on such recommendations or any oral advice is hereby expressly excluded.

This Technical Data Sheet supersedes all previous editions.

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