Terostat-92

Elastic Paintable One Component
Adhesive / Sealant

Product Information
Produktinformation
Information produit
Information del producto

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Basis: Polyurethane

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Product Description

Terostat-92 is a gun-grade, one component adhesive/sealant based on polyurethane, which cures by reaction with moisture to an elastic product. Skin formation time and cure rate depend on humidity and temperature, the cure rate also on the depth of the joint. By increasing the temperature and moisture these times can be reduced; low temperature as well as low moisture retard the process.

Terostat-92 exhibits the following properties:

– good adhesion to many metals and plastics without primer
– can be painted wet on wet
– sag resistant
– high curing speed
– excellent elasticity
– good ageing resistance
– can be grinded.

Application Areas

Terostat-92 is used for elastic sealing and bonding, particularly seam sealing and sealing of narrow joints in the following areas:

– vehicle and vehicle body manufacture
– vehicle body build-ups
– railway carriage and container manufacture
– ship and boat building
– metal, facade and plant manufacture
– air conditioning and air ventilation.

Terostat-92 is used in cases where painting is of particular importance. Terostat-92 can often replace mechanical fixation methods e.g. screws, welding, clamps etc. Temporary fixation of the joint with adhesive tapes or spacers should be conducted until the adhesive/sealant has completely cured. Terostat-92 offers the important advantage that both bonding and sealing functions can be conducted with one product. Terostat-92 is not generally suitable for constructive bonding.

Technical Data

Colours:	white, grey, black
Odour:	aromatic (no smell after curing)
Consistency:	paste, brushable – can also be applied by spatula
Density:	ca. 1,15 g/cm^3
Sag resistance: (ISO 7390, profile U 20)	very good
Curing mechanism:	moisture curing
Skin formation time: (DIN 50014 standard climate:	ca. 30–60 mins 23°C, 50 % rh)
Cure rate: (DIN 50014 standard climate:	ca. 4 mm/24 h 23°C, 50 % rh)
Shore-A-hardness (DIN 53505):	ca. 35
Tensile strength(DIN 53504):	ca. 1.6 MPa

Elongation at break (DIN 53504):	620–650 %
Shear strength:	ca. 1 MPa
(based on DIN EN 1465)	
Tear resistance (DIN 53515):	ca. 11 N/mm
Application temperature:	5°C to 35°C
In service temperatures:	–40°C to 70°C
limited (24 hrs):	80°C
Short exposure (up to 1 h):	120°C

Adhesion

Good adhesion without primer on raw (degreased), primed and painted vehicle body sheet metal, to glass/glass-ceramics, wood (untreated, varnished, painted), construction plastics, e. g. PUR-RIM, ABS, PBTP, various polymer blends, GF-polyester etc.

Depending on substrate surfaces, the use of a primer as an adhesion promoter to provide optimum adhesion of Terostat-92 may be necessary. On thermoplastics such as PE or PA surface activating methods like flame treating, corona, low pressure plasma, improve adhesion.

In the case of stainless steel, aluminium and copper, adhesion can be significantly improved by using Primer-102.

Due to the large number of primer paints, paints, plastic surfaces etc. we recommend application trials before use. Significant improvement in adhesion to plastic and metal surfaces can be achieved almost always by carefully cleaning with a suitable solvent.

We also recommend trials before use on all substrates not named above.

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 labelling, the relevant precautions should always be observed.

Cleaning

The surfaces to be bonded must be dry, free of oil, grease, dust and other contaminants. For cleaning we recommend Cleaner-A, Cleaner-D and Cleaner-FL.

Application

Application of Terostat-92 from 310-ml-cartridges is made with the relevant Teroson manual or air pressure pistols, from 400-ml-plastic wallets with the Teroson Air Pressure Pistol M or Air Pressure Pistol 70, from foil cartridges with the respective special manual or air pressure pistols.

For air pressure application 2–5 bar are necessary.

Low material temperatures of the sealant will lead to an increase of viscosity, resulting in a lower extrusion rate. This can be avoided by bringing the sealant up to room temperature prior to application.

If substrates are too cold temperature may fall below dew point causing condensation. This can be avoided by bringing the substrates up to room temperature in time.

Terostat-92 can also be applied from hobbocks with high pressure pumps with follower plates, which must have the following characteristics:

– the entire equipment, including hoses and pipes, must be moisture tight
– the follower plate must be driven by a double pneumatic or hydraulic ram
– minimum pneumatic or hydraulic ratio: 48:1
– centering of the container.

Application of the adhesive/sealant is carried out either manually or by an automated application system (CNC or robot), often using heads especially designed to give particular bead characteristics. Teroson can recommend suitable suppliers of manual and automatic equipment.

There is a leaflet available on handling Terostat-92 from pails and drums.

After application, Terostat-92 can be smoothed with a spatula dipped in soapy water. Where joint edges have been marked with tape the use of a spatula is sufficient.

For cleaning tools of uncured Terostat-92, we recommend Cleaner-D.

Painting Properties

Terostat-92 can be painted wet on wet with 2 component repair paints based on Alkyd and Acrylate. Curing is not hindered by the paint layer. Nitro repair paints applied from aerosol cans and alcohol based paints/diluents are only conditionally compatible with Terostat-92.

Corrosion protection primer paints may only be applied to cured Terostat-92, as these usually permit only very low water vapour transmission. In cases where accelerated paint drying in a drying oven or with IR radiation is required a prereaction/waiting period of minimum 30 mins must be respected. Only thereafter may Terostat-92 be heated. The maximum temperature to which the uncured sealant may be exposed is 90°C for 1 hour.

Test Certificate

Terostat-92 has been sensory tested according to DIN 10 955 (Test certificate No. 20520/87 of "Süddeutsches Kunststoffzentrum, Würzburg" dated 11.5.87)

"The cured adhesive/sealant demonstrates neutral odour and taste."

Storage

Frost-sensitive	no
Recommended storage temp.	10° to 25°C
Shelf-life	12months

Packaging

Aluminium cartridge	310 ml
Foil cartridge	310 ml (black, white)
Foil cartridges	570 ml
Plastic wallets	400 ml (white)

Packaging in hobbocks is possible.

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 k-nowledge 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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