Product Information

Terostat-MS 935

One–component Sealant/Adhesive, Elastic
Basis: MS®-Polymer

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Characteristics

Terostat-MS 935 is a gun–grade, one component sealant/adhesive based on silane modified polymer, which cures by reaction with moisture to an 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.

Terostat-MS 935 is free of solvents, isocyanates, silicones and PVC, and is odourless. It demonstrates good adhesion without primer to many substrates and is compatible with suitable paint systems. The sealant/adhesive also demonstrates good UV resistance and can therefore be used for interior and exterior applications.

Terostat-MS 935 demonstrates the strength necessary for elastic bonding. This property of the product also remains at the temperatures in repair ovens (max. 100°C). Terostat-MS 935 shows no shrinkage, and therefore dimpling and tension stress are not observed under these conditions.

Terostat-MS 935 is high viscous and sag resistant, creating a high position tack of the parts to be bonded immediately after matching, thus making a fixing unnecessary of the parts to be bonded in many cases.

Terostat-MS 935 allows accelerated curing as 2–component material. See separate data sheets Terostat-MS Power & Speed Technologie or Terostat-MS 2K–Technologie.

Application Areas

Terostat–MS 935 is used for the following applications:

– elastic, anti–flutter bonding of metals and plastics (panel stiffeners, roof skins etc.)
– elastic bonding of wood core plywood to the metal boat deck in ship building industry
– elastic, interior and/or exterior seam and joint sealing in the following areas: vehicle body, railway carriage, container and general metal construction; the equipment, electrical, plastics, air–conditioning and ventilation industries.

Technical Data

Colours: white, grey, black
Odour: odourless
Consistency: pasty, thixotropic
Density: approx. 1.4 g/cm³
Solids: 100 %
Curing mechanism: humidity curing
Sag resistance: no sagging (DIN–profile 15 mm)
Skin formation time *: 10–20 mins
Cure rate *: approx. 3 mm/24 h
Shore–A–hardness (DIN 53505) *: approx. 50
Tensile strength *: approx. 2.8 MPa
Elongation to break *: approx. 230 %
Stress at 100 % elongation *: approx. 1.5 MPa
Volume change (DIN 52451): < 2 %
Paint compatibility: can be painted (see painting properties)
UV resistance: no significant changes of the surface
Test method: dry UV
UV source: Osram Vitalux 300 W
Distance to the specimen: 25 cm
Test period: 6 weeks
Application temperature: 5°C to 40°C
In service temperature range: –40°C to 100°C
Short exposure (up to 1 h): 120°C

* DIN 50014 standard climate: 23°C, 50 % relative air humidity

Application

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.

Pretreatment
The substrates must be clean, dry, oil and grease free. Depending on the surface it can be necessary to roughen the surface or to use a primer/adhesion promoter to provide optimum adhesion.

When manufacturing of plastics, external release agents are often used; these agents must be absolutely removed prior to starting bonding or sealing. Due to the different compositions of paints, especially powder paints, and the large number of different substrates, application trials before use are necessary. For cleaning, Cleaner+Diluent A, D and FL from the Teroson programme are suitable.

When bonding and sealing PMMA, e.g. Plexiglass®, and polycarbonate, e.g. Makron® or Lexan®, under tension, stress corrosion cracking may occur. Application trials before use are necessary.

There is no adhesion to polyethylene, polypropylene and PTFE (e.g. Teflon®). Substrates not mentioned above should be subject to trials.

Application
Application from 310 ml cartridges is made with the Teroson Hand or Air Pressure Pistols, and from plastic wallets (310 and 570 ml) with the corresponding FK–Hand or FK–Air Pressure Pistols. In the case of compressed air application a pressure of 2–5 bar is required.

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-MS 935 can also be applied from hobbocks or drums with high pressure pumps with follower plates. See separate applications directions of Terostat-MS products in hobbocks and drums.

After gunning Terostat-MS 935 can be smoothed with Terostat–Smoothing Agent. Where joint edges have been masked the surface can be smoothed by using a spatula.

**Cleaning**

For cleaning application equipment contaminated with uncured Terostat–MS 935 we recommend the use of Cleaner+Diluent A, D or FL.

**Painting**

Terostat-MS 935 can be painted wet–on–wet with 1K and 2K repair paints, including those containing alcohols as solvents. Curing is not hindered by an immediate painting but retarded.

2K–PUR/acrylic paints show best results when the painting is done prior to full curing. For optimum adhesion the material should be painted within 3 h after application of the sealant. After full curing the sealant/adhesive must be pretreated similar to plastic painting. A retardation of drying may be observed with alkyd resin systems (trials are recommended). On certain types of 2K double layer metallic paints adhesion failures may be observed under unfavourable conditions (trials with plastic primers of the paint manufacturers are recommended). When using certain silicone removers adhesion failures are possible, too.

**Test Certificates**

- impact testing (Test certificate No. 045/92 of AEG–Schienenfahrzeuge GmbH, Henningsdorf, dated 18.09.92)

**Storage**

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

**Packaging**

- Cartridge: 310 ml (white, grey, black)
- Plastic wallet: 310 ml (black)
- Plastic wallet: 570 ml (white, grey)
- Packaging in hobbocks or drums: on request

**Transport Regulations**

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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