TEROSON

Technical Data Sheet

Teroson MS 510

August 2014

PRODUCT DESCRIPTION

Teroson MS 510 provides the following product characteristics:

Technology	Silane-modified polymer
Product Type	Sealant
Components	One-component
Cure	Humidity
Application	Assembly
Appearance	Black, White
Consistency	Pasty, Thixotropic
Odor	Characteristic

Teroson MS 510 is a gun-grade, one-component sealant based on silane modified polymers, 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. Teroson MS 510 is free of solvents, isocyanates, silicones and PVC. It demonstrates good adhesion to many substrates and is compatible with suitable paint systems. The sealant also demonstrates good UV resistance and can therefore be used for interior and exterior applications. Teroson MS 510 allows accelerated curing as two-component material.

Application Areas:

Teroson MS 510 is used for the following applications: . bonding and sealing operations in the solar power generating industry. . seam and joint sealing in vehicle body, railway carriage and container manufacture; ship and boat building; metal constructions.

TECHNICAL DATA

Density, g/cm³:	approx. 1.5
Sag resistance:	no sagging (DIN profile 15 mm)
Skin formation time, min*:	approx. 5 to 15
Cure rate, mm/24 hrs:	approx. 3 to 4
Shore-A-hardness (ISO 868, Durometer A):	approx. 45
Tensile strength (acc. to ISO 37), MPa:	approx. 1.6
Elongation at break (acc. to ISO 37, speed 200 mm/min),%:	approx. 210
Stress at 100 % elongation (acc. to ISO 37), MPa:	approx. 0.9
Volume change (acc. to DIN 52451), %:	<2
UV resistance:	no signif. changes
UV source:	Osram Vitalux 300W, dry UV
Distance to the specimen, cm:	25
Test period, weeks:	6
QUV resistance:	no signif. changes
QUV source:	QUV weatherometer acc. to DIN 53384-A
Test period, weeks:	6
Damp heat test durability **:	given
Reference IEC 61215/61646 clause 10.13:	
Test period, hours:	1,000
Application temperature, °C:	5 to 40
In service temperature range, °C:	-50 to +100
Short exposure (up to 1 h), °C:	120
* ISO 291 standard climate:	23°C, 50% relative air humidity
**Damp heat conditions:	85°C, 85% relative air humidity

DIRECTIONS OF USE

Preliminary statement:

Prior to application it is necessary to read the **Material 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.

Pre-Treatment:

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 best adhesion. When manufacturing plastics, external release agents are often used; these agents must be accurately 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, FL or Teroson SB 450 from the Henkel portfolio are suitable. When bonding and sealing PMMA, e.g. Plexiglas®, and polycarbonate, e.g. Makrolon® 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.

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Application:

Application from 290 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 to 3 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. Teroson MS 510 can also be applied from hobbocks or drums with high pressure pumps with follower plates. See separate application directions of Teroson MS products in hobbocks and drums.

Cleaning:

For cleaning application equipment contaminated with uncured Teroson MS 510 we recommend the use of Cleaner+Diluent Teroson A, D or FL.

STORAGE

Frost-Sensitive	No
Recommended Storage Temperature, °C	10 to 25
Shelf-life (in unopened original packaging), months	12

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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