

TEROSON MS 9399

26 August 2014

PRODUCT DESCRIPTION

TEROSON MS 9399 provides the following product characteristics:

Technology	Silane-modified polymer
Product Type	Adhesive/Sealant
Components	Two-component
Cure	Room temperature cure after mixing
Application	Assembly
Appearance	Component A: black, grey, white Component B: black, white Remark: A-component grey to be used with b-component white
Consistency	Pasty, Thixotropic
Odor	Characteristic
Mix Ratio, by volume - Part A: Part B	1 : 1

TEROSON MS 9399 is a highly viscous, sag-resistant, two-component adhesive based on silane-modified polymers, which cures independently of the atmospheric moisture to an elastic product. It is free from solvents, isocyanates and silicones. TEROSON MS 9399 has good UV and weathering resistance and can be employed for bondings in indoor and outdoor uses.

Application Areas:

TEROSON MS 9399 can be used for elastic bondings, for example in the caravan manufacture, in the railroad vehicle industry or in shipbuilding.

TECHNICAL DATA

Component A

Density, white, grey, black, g/cm³: approx. 1.4

Component B

Component B, density, black, g/cm³: approx. 1.3

Component B, density, white, g/cm³: approx. 1.3

Mixture (Component A+B)

Density, black g/cm³: approx. 1.35

Density, white, grey, g/cm³: approx. 1.35

Sag resistance: in joints up to 15 mm (DIN profile)

Processing time/

Open time 23° C, min:

Black: approx. 30

White: approx. 20

Grey: approx. 20

Strength for further handling 23° C, h:

Black: approx. 2.5 to 3

Grey: approx. 1.5 to 2

White: approx. 1.5 to 2

Shore-A-hardness (ISO 868, Durometer A)*: approx. 55

Tensile strength (acc. to ISO 37), MPa: approx. 3.0

Elongation at break approx. 150

(acc. to ISO 37, speed 200 mm/min)*, %:

Tensile shear strength approx. 2

(acc. to ISO 4587), MPa: (1 mm thick sheet metal)

Substrates: Al 99.5

Layer thickness, mm: 2

Cross head speed, mm/min: 10

UV resistance: no signif. changes

UV source: Osram

Vitalux 300W, dry UV

Distance to the specimen, cm: 25

Test period, weeks: 6

Application temperature, °C: 15 to 40

In service temperature range, °C: -40 to +100

Short exposure (up to 1 h), °C: 120

* ISO 291 standard climate: 23°C, 50% 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 adhesion surfaces must be clean, dry, oil and grease free. Depending on the surface it may be necessary to roughen the surface by mechanical means or to use a primer/adhesion promoter to provide best adhesion. For plastics surfaces we recommend the use of Teroson SB 450. When manufacturing 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. 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. Substrates not mentioned above should be subject to trials.

Application:

TEROSON MS 9399 is contained in a 2 x 200 ml cartridge set (components A and B) which also contains a static mixer. To open the cartridges, the metal cap must be removed and the green plug pulled out. Now, the static mixer is screwed onto it. The cartridge set is then placed into the suitable compressed-air pistol. When the pistol handle is actuated, the material is pressed through the static mixer, whereby the two components are automatically mixed. The first 10 ml of the adhesive pass should be rejected, owing to the fact they may not have been mixed correctly. If the application of adhesive is interrupted for more than 5 minutes at 23° C, the static mixer should be replaced. Otherwise, the increase in viscosity could cause the static mixer to burst. At higher processing temperatures interruption times will decrease. TEROSON MS 9399 is applied directly to the substrate. For the processing equipment that we recommend, the processing pressure should not exceed 5 bars. The parts which are to be bonded must be joined within the specified processing time. Surplus material is to be removed immediately after application. Other packagings are available on request.

Cleaning:

For cleaning application equipment contaminated with uncured TEROSON MS 9399 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), 9 months	

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.

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 and/or registered trademarks of Henkel and its affiliates in the U.S. and elsewhere.

Reference 0.2