

TEROSON[®] MS 9381 HPT

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PRODUCT DESCRIPTION

TEROSON[®] MS 9381 HPT provides the following product characteristics:

Technology	Silane-modified polymer
Chemical type	Silane-modified polymer
Appearance (uncured)	Black
Viscosity	Thixotropic paste
Cure	Moisture
Application	Bonding and sealing
Application temperature	15 to 35°C (59 to 95°F)
In service temperature	-40 to 100°C (-40 to 212°F)
short exposure (up to 1h)	120°C (248°F)
Specific benefits	• Excellent elasticity • Very good sag resistance • High initial tack • Non-corrosive • Good paint compatibility • Good resistance to UV-ageing and weathering • Good adhesion to raw metal sheet, EC paint, top-coat paint, and plastics • Tin free • PFAS free

TEROSON[®] MS 9381 HPT is a high viscosity, sag resistant one component adhesive based on silane modified polymer, which cures to an elastic product. Skin formation and curing times depend on humidity and temperature. In addition, the curing time also depends on the layer thickness. By increasing the temperature and humidity, the reaction time can be reduced. Low temperature as well as low humidity retards the process.

TEROSON[®] MS 9381 HPT is free of solvents, isocyanates, silicones, tin, BPA, PFAS and PVC. It demonstrates good adhesion to many substrates. The adhesive also demonstrates good UV resistance and can therefore be used for interior and exterior applications. Teroson[®] MS 9381 HPT allows accelerated curing as two-component material.

Typical applications include window glazing, elastic bonding of metals and plastics, e.g. side paneling and bonding of the roof skin in the vehicle and caravan manufacture, and elastic, interior and/or exterior seam and joint sealing in the following area such as vehicle body, caravan, railway carriage, container and general metal construction; electrical, plastics, air-conditioning and ventilation industries.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific gravity @ 23°C 1.45

TYPICAL CURING PERFORMANCE

Curing @ 23°C, 50%RH

Cure rate for 24 hours, mm 3

Under normal conditions, the atmospheric moisture initiates the curing process. The product develops functional strength in 24 hours and fully cures in 7 days.

Skin over time

Skin over time is the time the surface of adhesive forms a skin upon exposure to atmospheric moisture at 23°C/50% RH

Skin over time, minutes 10

TYPICAL PERFORMANCE OF CURED MATERIAL

Physical properties

Sample cured for 1 week @ 23°C, 50% RH

Shore hardness, ISO 868, Durometer A	55
Elongation at break, ISO 37, speed 200 mm/min, %	250
Volume change, DIN 52451, %	<2
Tensile strength, ISO 37	N/mm ² 3.5 (psi) (507)
Stress @ 100% elongation	N/mm ² 2.0 (psi) (290)

TYPICAL ENVIRONMENTAL RESISTANCE

Cured for 1 week @ 23°C, 50% RH and ISO 37, 2mm thickness

UV resistance

Tested for 6 weeks with 25 cm distance

Osram Vitalux 300W, dry UV no significant changes

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Safety Data Sheet (SDS).



Directions for use

Surface preparation

1. For the best performance, the substrate must be clean, dry, oil and grease free.
2. For cleaning TEROSON® brand cleaners/primers are suitable.
3. Depending on the substrate it can be necessary to roughen the surface or to use a primer to provide best adhesion.
4. When manufacturing plastics, external release agents are often used; these agents must be accurately removed prior to starting bonding or sealing.
5. Especially for plastics and coatings - powder coatings – TEROSON® SB 450 may improve adhesion.
6. When bonding and sealing PMMA and polycarbonate under tension, stress corrosion cracking may occur. Application trials before use are necessary.

Application

1. Application from foil pack (570 ml) is made with the corresponding FK-Battery Hand or FK-Air Pressure Pistols. In the case of compressed air application, a pressure of 5 to 6 bar is required by room temperature.
2. Moisture curing begins immediately after the product is exposed to the atmosphere, therefore parts to be assembled should be mated within a few minutes after the product is dispensed.
3. The bond should be allowed to cure (e.g. seven days), before subjecting to heavy service loads.
4. 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.
5. TEROSON® MS 9381 HPT can also be applied from hobbocks or drums with high pressure pumps with follower plates.

High and low levels of relative humidity will have an impact on the cure speed.

Cleaning

1. Excess uncured material can be easily wiped away with non-polar solvents or TEROSON® brand cleaners + diluents TEROSON® VR 30 or TEROSON® VR 10.
2. Cured material can be removed mechanically.

Painting

- After skin formation TEROSON® MS 9381 HPT can be painted with usual commercial available paints.
- Early overpainting does not inhibit curing but slows down the curing process.
- Overpainting should be carried out within 3 days max.
- Considering the great variety of paint systems available, sufficient trials should always be carried out to confirm suitability of our product.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal storage: 10 to 25°C. Storage below 10°C or greater than 28°C can adversely affect product properties. Not frost sensitive.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Henkel representative.

Product specification

The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Approval and certificate

Please contact Henkel representative for related approval or certificate of this product

Data ranges

The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.

Temperature/Humidity Ranges: 23°C / 50% RH = 23±2°C / 50±5% RH

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\mu\text{m} / 25.4 = \text{mil}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Disclaimer

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