Technical Data Sheet

TEROSON® MS 949 FR

December 2025

PRODUCT DESCRIPTION

TEROSON® MS 949 FR 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 40°C
In service temperature	-40 to 100°C
short exposure (up to 1h)	120°C
Specific benefits	• Excellent elasticity • Fire resistance • Non-corrosive • Good paint compatibility • Good resistance to UV-ageing and weathering • Good resistance to cleaning agents • Good adhesion to raw metal sheet, EC paint, top-coat paint, glass and plastics

TEROSON® MS 949 FR is a one component adhesive/sealant based on silane modified polymer, which cures by reaction with humidity 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 949 FR is a fire retardant adhesive/sealant and is therefore recommended for elastic bonding or sealing applications where fire resistance is required. TEROSON® MS 949 FR also demonstrates superior UV and QUV resistance as well as superior resistance to rail cleaners resistance and can therefore be used for interior and exterior applications. It can be used primerless on most paint systems demonstrating superior adhesion before and after ageing. TEROSON® MS 949 FR allows accelerated curing as two-component material for pail or drum dispense with accelerator TEROSON® MS 9372.

Typical applications include elastic bonding and sealing of metal, plastic and glass components in railway carriages including windows, doors, floor panels, exterior and interior seams. This adhesive/sealant is particularly suited for applications where fire resistance is required.

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

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	30

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, %	250
Volume change, DIN 52451, %	<2
Tensile strength, ISO 37, MPa	2.8
Stress @ 100% elongation, N/mm^2	1.8

TYPICAL ENVIRONMENTAL RESISTANCE

Cured for 3 weeks @ 23°C, 50% RH

UV resistance

Tested for 18 weeks with 25cm distance

Osram Vitalux 300W, dry UV	no significant changes
ISO 37, 2mm thickness	

QUV resistance

Tested for 18 weeks @ 85°C, 50% RH

QUV weatherometer, DIN 53384-A	no significant changes
ISO 37, 2mm thickness	

Fire resistance

TEROSON® MS 949 FR is tested to the requirements of EN 45545-2. R22 HL2 / R23 HL2.

TEROSON® MS 949 FR is tested to the requirements of NFPA 130. ASTM E-162 / ASTM E-662.

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 substate 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 cartridge is made with hand or pressure guns. In the case of compressed air application a pressure of 2 to 5 bar (29 to 73 psi) is required.
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 949 FR can also be applied from pails or drums with high pressure pumps with follower plates.

Cleaning

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

Painting

- After skin formation TEROSON® MS 949 FR can be painted with usual commercial available paints.
- Early overpainting does not inhibit curing but slows down the curing process.
- Overpainting should be caried 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°C - 28°C. Storage greater than 28°C can adversely affect product properties.

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

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Disclaimer

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