TEROSON

Technical Data Sheet

TEROSON MS 647 2C

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PRODUCT DESCRIPTION

TEROSON MS 647 2C provides the following product characteristics:

Technology	Silane-modified polymer
Product Type	Adhesive/Sealant
Components	Two-component
Cure	Cure at ambient temperature (above 5°C) or cure at elevated temperatures
Application	Assembly
Appearance	Component A: TEROSON MS 647, Component B: TEROSON MS 9371B
Consistency	Pasty, Thixotropic
Odor	Characteristic
Mix Ratio, by volume - Part A: Part B	10 : 1

TEROSON MS 647 2C is a high viscos, sag-resistant, two-component adhesive based on silane modified polymers which cures to an elastic product.

The material is free of solvents, isocyanates and silicones.

After component A has been thoroughly mixed with component B the curing starts - independent of humidity - to form an elastic material.

One hour after mixing the elastic adhesive has got a high green strength.

In order to really make use of the advantage of elastic bonding, care should be taken of a sufficient dimensioning of the bonding joint.

A minimum thickness is necessary so that the elastic adhesive is able to compensate the movements between the materials to be bonded under the influence of different temperatures during final use of the bonded part.

Application Areas:

TEROSON MS 647 2C can be used for the following applications:

elastic bonding of metals and plastics e.g. side panelling and bonding of the roof skin in the vehicle and caravan manufacture. Elastic, interior and/or exterior seam and joint sealing in the following areas: vehicle body, caravan, railway carriage, container and general metal construction, electrical, plastics, air-conditioning and ventilation industries.

TECHNICAL DATA

Component A, density, white, black, grey, g/cm³:	approx. 1.4
Component B, density, white, g/cm³:	approx. 1.3
Component A, Skin formation time, min*:	approx. 10 to 20
Component B, Skin formation time, min*:	not applicable

Mixture (Component A+B)

Sag resistance:	no sagging (DIN profile 15 mm)
Pot life, min*:	approx. 8 to 12
Open time, min*:	approx. 15 to 20
Handling strength, min*:	approx. 45-60 at 23°C approx. 30 at 30°C
Shore-A-hardness: (ISO 868, Durometer A)	approx. 45
Tensile strength (acc. to ISO 37), MPa:	approx. 2.8
Elongation at break (acc. to ISO 37, speed 200 mm/min),%:	approx. 300
E-Modulus, MPa:	approx. 2
Tensile shear strength (acc. to DIN EN 1465), MPa*:	approx. 2.5
Substrates:	Alu/Alu
Layer thickness, mm:	approx. 2
Cross head speed, mm/min:	approx. 50
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:	5 to 40
Short exposure (up to 1 h), °C:	180
In service temperature range, °C:	-40 to +100
* ISO 291 standard climate:	23°C, 50% relative air humidity

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DIRECTIONS FOR 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 Teroson VR 10, VR 30, VR 40 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.

Application:
TEROSON MS 647 2C consists of two components: component A = TEROSON MS 647 and component B = TEROSON 9371B. Both components can be made available in drums and hobbocks. By means of suitable application equipment, both A and B component are dosed in a ratio by volume of 10:1 and are homogenously mixed by use of static mixer shortly before application. . 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. See separate application directions of TEROSON MS products in hobbocks and drums.

Cleaning:
For cleaning / purging application equipment contaminated with uncured TEROSON MS 647 2C we recommend the use of Teroson MS Cleaning Paste.This paste can be used to clean both parts of the application equipment = component A and B.

Storage:

Frost-Sensitive	No
Recommended storage temperature, °C	10 to 25

ADDITIONAL INFORMATION

Disclaimer:
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.

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