



Terostat MS 9380 2C

23 March 2010

PRODUCT DESCRIPTION

Terostat MS 9380 2C provides the following product characteristics:

Technology	Silane modified polymer
Product Type	Adhesive
Components	Two-component
Cure	Cure at ambient temperature (above 15°C) or Cure at elevated temperatures
Application	Assembly
Appearance	Component A: white, grey, black Component B: white
Consistency	Pasty, Thixotropic
Odor	Characteristic
Mixing Ratio, by weight Part A: Part B	10 : 1

Terostat MS 9380 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. Henkel technical experts can assist in calculating the adhesive joint dimensions (width and thickness).

Application Areas:

Terostat MS 9380 2C can be used for elastic bonding and sealing on many materials, such as glass, metal, painted surfaces and plastics. It is used where the cure speed of a conventional one-component adhesive is too slow.

Terostat MS 9380 2C is used in the Photovoltaic industry.

TECHNICAL DATA

Component A, density, white, grey, black, approx. 1.48 g/cm³:

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

Component A, Skin formation time, min*: approx. 10

Component B, Skin formation time, min*: -

Mixture (Component A+B)

Density, white, grey, black g/cm³: approx. 1.45

Sag resistance: no sagging (DIN profile 15mm)

Pot life, min*: approx. 2 to 3

Open time, min: approx. 5 to 10

Handling strength, hrs:	approx. 2 to 4
Shore-A-hardness (ISO 868, Durometer A)*:	> 60
Tensile strength (acc. to ISO 37), MPa*:	approx. 4
Elongation at break (acc. to ISO 37, speed 200 mm/min), %:	approx. 120
E-Modulus, MPa:	> 3
Tensile shear strength (acc. to ISO 4587), > 2 MPa:	
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
Reference IEC 61215/61646 clause 10.13:	
Damp heat test durability **:	given
Test period, hours:	1,000
Application temperature, °C:	15 to 40
In service temperature range, °C:	-40 to +100
Short exposure (up to 1 h), °C:	120
* DIN 50014 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. Corona or Plasma treatment improve the adhesion to many different materials. 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 Terostat 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.



General remarks:

Due to the rapid curing after the expiry of the pot life, the mixing equipment must be cleaned in time. Thereby, it must be remembered that the pot life depends on the temperature: a higher temperature accelerates the chemical reaction, whereas a reduction in temperature will retard it. The actual processing time depends on the technical conditions, the mixing equipment and the temperature. For component A itself, the atmospheric humidity is a decisive factor.

Application:

The material is applied using a hand-controlled applicator pistol or a stationary automatic valve. For more lengthy interruptions (for example overnight breaks) the pressure in the system should be dropped to zero. On request Henkel will provide information on manufacturers of such types of processing systems.

Terostat MS 9380 is metered and fed from hoppers (pails) or drums, Terostat MS 9371 B is metered from hoppers using two component processing equipment and mixed by means of a static mixer. All the equipment including hoses and pipes must be protected from atmospheric humidity.

Curing:

Terostat MS 9380 / MS 9371B can be cured at ambient temperature (above 15°C) or at elevated temperature (up to 60°C). Higher temperature reduce the curing time; however, the fact that higher temperatures result in shorter processing times (pot life and open time) has to be kept in mind.

During setting, care must be taken that sufficient pressure is exerted on the mating parts to hold them in place, i.e. to ensure that the parts are kept in contact with the adhesive over their entire bonding surface.

Cleaning:

For cleaning application equipment contaminated with uncured Terostat MS 9380 2C we recommend the use of cleaners + diluents A or FL.

STORAGE

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

ADDITIONAL INFORMATION**Disclaimer:**

The Information provided herein, especially recommendations for the usage and the application of our products, is based upon our knowledge and experience. Due to different materials used as well as to varying working conditions beyond our control we strictly recommend to carry out intensive trials to test the suitability of our products with regard to the required processes and applications. We do not accept any liability with regard to the above information or with regard to any verbal recommendation, except for cases where we are liable of gross negligence or false intention.

This datasheet replaces all former versions.