

Merbenit ST40

Merbenit ST40 is a sprayable, elastic adhesive with excellent sealing properties. Adheres thanks SMP base to various materials. Merbenit ST40 allows to apply seam and joint sealings with different surface structures as well as perform efficiently large area bondings.

Product advantages

- Sprayable
- Long processing time
- Free of solvents, isocyanates and silicones
- Very wide adhesion range
- Odourless
- Compatible with paints
- Shortly resistant up to +200°C for powder and thermal coating
- Adjustable
- Gap and crack bridging
- Permanently elastic
- Very good sealing properties
- Non-corrosive on surfaces
- Impact and vibration resistant (shock absorbing)

Technical data

Chemical base	Silane modified polymer
Mechanism of curing	1 comp. moisture curing
Shore A hardness, DIN 53505	32
Modulus elongation at 100%, DIN 53504 S2	ca. 1.1 N/mm ²
Elongation at break, DIN 53504 S2	ca. 300%
Tensile strength, DIN 53504 S2	ca. 2.1 N/mm ²
Consistency	pasty, sprayable
Tooling time	max. 25 min.
Curing rate after 24h	≥ 2.0 mm
Curing rate after 48h	≥ 3.0 mm
Density	1.38 ± 0.05 g/cm ³
Volume change, DIN EN ISO 10563	≤ 6%
Temperature resistance after curing	- 40 °C to + 90 °C
Application temperature	+ 5 °C to + 40 °C

All measurements were performed under normal conditions (23 °C and 50 % relative humidity).

The data are based on the results after 3 months.

Application

Flexible large surface bonding and sealing in the areas of metal, apparatus and machine construction, plastics technology, air-conditioning and ventilation systems, car body, wagon, vehicle and container construction. The neutral polymerisation allows a connection without thermal or chemical pre-treatment of the assembly parts. Counterbalancing tolerances. Seam seals are visually identical to plastisol seams.

Substrate range

Suitable materials are metals, powder-coated, varnished, galvanised, anodised, chromed or hot zinc dipped surfaces, various plastics, ceramics, stone, concrete and wood. Due to the large variety of different plastics and compositions as well as materials which are susceptible to cracks, preliminary tests are recommended.

Technical data sheet Merbenit ST40

Substrate preparation

To achieve reproducible results the substrate has to be pre-treated according to the state of technology. All undefined surfaces must be removed using suitable methods. Apply the adhesive/sealant promptly to the prepared surface. Depending on the substrate and the expected requirements a mechanical or chemical pre-treatment is recommended respectively cleaning with rubbing alcohol, isopropyl or acetone. For application the surface has to be clean, durable and free of dust, oil and grease. The compatibility with adjacent materials, coatings etc. must be determined in advance.

Adhesion promoter

With most materials a good adhesion is achieved even without adhesion promoter. In the case of high moisture influence we recommend our Adhesion Promoter V40 on non-porous materials, Adhesion Promoter V21 on open porous materials. For thermo-painted or powder-coated surfaces and plastic materials we recommend our Adhesion Promoter V40. Preliminary tests are recommended.

Processing

- Can be applied directly from the cartridge / bag using a suitable caulking gun (manual, air, battery)
- The product can be spread with a spatula or brush on the surface
- For large area bonds the product can be applied with a notched trowel on the surface
- Spray pattern can be applied with an air and application quantity controlling spray caulking gun. All structure types according to OEM (Original Equipment Manufacturer) can be set. The width and limitation of the seam can be additionally varied by the spraying distance. For bonding on large surfaces the curing can be significantly accelerated with spraying water (approx. 10g/m²)
- The bonding must take place within the processing time
- Non-cured adhesive can be removed with rubbing alcohol or isopropyl
- Cured adhesive can only be removed mechanically

Paint compatibility

Due to the diversity of varnishes and paints on the market we recommend preliminary tests. For burning process the material can be exposed, when fully cured, in short term to elevated temperatures.

Chemical resistance

- Good against water, aliphatic solvents, oils, grease, diluted inorganic acids and alkalis
- Moderate against esters, ketone and aromatics
- Not resistant against concentrated acids and chlorinated hydrocarbons

Colours

- black
- grey
- other colours on request

Packaging

- Cartridges of 290 ml in boxes of 12 units
- Sausages of 400 ml in boxes of 12 units
- Hobbocks of 20 liter on pallet of 16 units
- Barrels of 180 liter on pallet of 2 units

Shelf life and storage conditions

- 18 months from date of production
- Store cool and dry (10 - 25 °C)
- Further information on request

Work and environmental safety

Important information about work and environmental safety is available on the material safety data sheet.

merz+benteli ag

Freiburgstrasse 616
CH - 3172 Niederwangen
Phone +41 31 980 48 48
Fax +41 31 980 48 49
info@merz-benteli.ch
www.merz-benteli.ch

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