

# Product information | *Merbenit ST40*

Merbenit ST40 is a sprayable, elastic, one-component adhesive and sealant on a MS-Hybrid polymer basis. With the help of a special gun, Merbenit ST40 can be applied as a caterpillar or can be sprayed. All kinds of structures, after OEM (Original Equipment Manufacturer) can be adjusted.

Merbenit ST40 is perfectly suitable for bonding of large surfaces, seam- and joint sealing and underbody protection for vehicles.

## Product advantages:

- 1-component
- Easy processing
- Multiple possibilities of application
- Free of solvents, isocyanate and silicones
- Very wide spectrum of adherence, also without primers
- Can also be applied on moist surfaces
- Nearly odourless
- Compatible with paint (also possible wet on wet)
- For powder- or thermo varnishing, stable on a short-term basis up to +200 °C
- Corrigible
- Slit- and crack-bridging
- Compatible with grinding and varnishing
- Permanently elastic from -40 °C to +90 °C
- Very good sealing abilities
- Very good weather- and ageing resistance
- High resistance against water, salted water, aliphatic solvents, oils, fat, watered inorganic acids and alkalis
- Non corrosive on surfaces
- Corrosion protecting
- Shock-proof and vibration-firm (shock-absorbent)
- Sound-absorbing

## Processing:

■ Merbenit ST40 can be sprayed directly from the cartridge / sausage (manual or compressed air gun), with a spattle or a paintbrush, and applied as a rounded caterpillar in stripes. If one side of the material is permeable to diffusion, Merbenit ST40 can also be applied dimensionally with a spatula.

## Spraying:

■ With a gun, with which the air and the quantity can be adjusted, splashing-pictures can be applied. All kinds of structures, after OEM (Original Equipment Manufacture) can be adjusted. Through the splashing-distance, width and limitation can vary in addition to the joint. For bonding of large surfaces, spraying of water (approx. 10 g/m<sup>2</sup>) can significantly speed up the curing procedure.

■ **Examples for flexible adhesion applications:** Container manufacturing, construction of car bodywork, ship-, metal-, apparatus-building, electro, plastic-, ventilation and climate technique. Seams made with Merbenit ST40 are visually identical to plastisol seams. Underbody protection of vehicles. Large surface bonding of all kinds. Bonding of signs, strips, diagonal braces, profiles, stiffening, fixtures, fittings, plates, sheet metals, receptacles, boxes, cabins, disguises, sandwich components, containers, constructions, bottom covers, frames, panels, coverings, shields, cuffs, nosing and protection joints.

■ **Well suitable materials are for example:** Steel, high-grade steel, aluminium, alu-anodized, brass, copper (Caution with high temperatures due to solar radiation), glass, acrylic glass, ceramics, stone, concrete, ABS (possible primers), PBT, PVC hard and soft, PPE, PA6.6-30, EPDM, GFK, wood, powder-coated, coated, galvanized, chromalized and pot-galvanized surfaces.

With materials which tend to stress-cracks, a preliminary investigation is recommended.

**For surfaces not listed here, please ask our technical applications consultant department!**



# Technical datas | Merbenit ST40

## CHEMICAL BASE

- Permanently elastic, sprayable, moisture curing, one-component adhesive and sealant based on MS hybrid polymer.

## TECHNICAL DATAS

Product name	Merbenit ST40
Colours	white, grey, black
Processing temperature with 50 % rf	+5 °C up to +40 °C
Volume change DIN 52451	< 10 %
Consistency	pasty, sprayable
Density at +23 °C	1.38 +/- 0.03 g/cm <sup>3</sup>
Skin forming time with +23 °C, 50 % rf	approx. 20 to 35 minutes
Curing through after 24 hours, +23 °C, 50 % rf	approx. 2.5 mm
Temperature resistance after curing	-40 °C up to +90 °C, short-time up to +200 °C
Shore A hardness, DIN 53505, after 3 weeks storage with +23 °C and 50 % rf	32 +/- 3
Modulus elongation at 100 % and +23 °C, DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 0.6 N/mm <sup>2</sup>
Tensile strength DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 1.6 N/mm <sup>2</sup>
Elongation at break DIN 53504	> 400 %

## CHEMICAL RESISTANCE

- Good: against water, aliphatic solvents, oils, fats, watered inorganic acids and alkalis
- Moderate: against esters, ketone and aromatics
- Not resistant: against concentrated acids and chlorinated hydrocarbons
- Completely weather-resistant

## PRIMER

■ With many clean material surfaces a good liability also without primers is achieved. However, should be checked always, whether a strong media- and moisture-load influence on the cross-linked polymer and material. In this case and by near porous as well as difficult surfaces we recommend always the use of a suitable primer.

## SURFACE TREATMENT

■ The surface has to be stable, clean, strong, dust-, oil- and fat-free. Acetone or Isopropanol show good results.

## STICKING-SLIT

■ Optimal sticking-slits measure between 1 - 6 mm according to surface to be bonded, material extension, tension and mechanical load.

## POWDER DEPOSITION AND COATING-PROCESSES

■ Merbenit ST40 can be exposed to increased temperatures at short notice after the curing. At ours attempts at +200 °C, 10 minutes or +180 °C, 30 minutes, no destruction of the polymer could be found. In the case of wet spraying attempts watery acrylic varnishes have shown a good liability and varnish picture. Sufficient pre-tests for both processes are recommended.

## SMOOTHING OF THE JOINT

■ We recommend before the stripping of the Merbenit Hybrid MS to use joint soapy solution.

## CLEANING

■ Cleaning of not cured sealant: immediately with grain paper and Isopropanol.

Cleaning of cured sealant: mechanically.

## STORAGE

■ In original packaging well closed, dry, protected from light and cool, twelve month storable.

## PACKAGING FORMS

■ 290 ml cartridge, 600 ml sausages, 20 L hobbocs, 180 L drums

## DOSAGE

■ A fully automatic proportioning is possible.

## WORK AND ENVIRONMENTAL SECURITY

■ No dangerous goods, not marking-liable. Important information about work and environmental security you take disposal from the security data sheet please.

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