

Product information | *Merbenit SF50*

Merbenit SF50 is a permanently elastic sealant adhesive on the basis of MS-Hybrid polymer. Merbenit SF50 shows an extremely fast strength build-up, combined with a high final tear-strength, moisture-curing.

Product advantages:

- 1-component
- Easy processing
- Free of solvents, isocyanate and silicones
- Very wide adherence spectrum, also without primers
- Can be applied also to moist surfaces
- Nearly odourless
- Paintable (also wet on wet)
- For the powder or thermo varnishing short-term up to +200 °C stable
- Very stable (thixotropic)
- Corrigible
- Divided- and crack-bridging
- Compatible with grinding and varnishing
- Duration-elastic of -40 °C to +90 °C
- Very good abilities for sealing
- Very good weather- and ageing resistance
- High resistance against aliphatic solvents, oils, fat, watered inorganic acids and alkalis
- Non corrosive on surfaces
- Corrosion protecting
- Shock-proof and vibration-firm (shock-absorbent)
- Good adhesive strength on the foil of the merz + benteli ag

Processing:

■ Merbenit SF50 can be applied directly from the cartridge (manual or compressed air pistol) as a rounded or triangular caterpillar in stripes. Bonded metals can be spot welded and immediately coated "wet-on-wet" with most of the usual varnishes. Merbenit SF50 can also be powder coated and loaded for a short time during the burning process (up to 200°C). Only to applied on clean, dry and fat-free substrates.

■ **Examples for flexible adhesion applications:** Flexible bonding and sealing of joints in car bodywork, automotive, wagon and container manufacturing, in the field of metal-, apparatus- and machine-engineering as well as car bodies, in the sector of shipbuilding, bonding of fenders and different bonding applications in construction. In plastics-, electrical-, ventilation- and air conditioning technology.

■ **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, varnished, galvanized, chromalized and pot-galvanized surfaces, Gomastit-flexsystem (in- and outflex-foil) as well as the m + b indoor- and outdoorfoil

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



Technical datas | Merbenit SF50

CHEMICAL BASE

- Duration-elastic one-component adhesive and sealant based on MS hybrid polymer.

TECHNICAL DATAS

Product name	Merbenit SF50
Colours	white, grey, black
Processing temperature with 50 % rf	+5 °C up to +40 °C
Volume change DIN 52451	approx. 6 %
Consistency	very thixotropic
Density with +23 °C	1.40 +/- 0.02 g/cm ³
Skin forming time with +23 °C, 50 % rf	approx. 5 minutes
Curing through after 24 hours, +23 °C, 50 % rf	approx. 3.5 mm
Temperature stability after curing	-40 °C up to +90 °C, short-time up to +200 °C
Shore A hardness, DIN 53505, after 3 weeks of storage with +23 °C and 50 % rf	50 +/- 2
Modulus elongation at 100 % and +23 °C, DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 1.3 N/mm ²
Tensile strength DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 3.0 N/mm ²
Elongation at break DIN 53504	approx. 400 %

CHEMICAL RESISTANCE

- Good: against water, aliphatic solvents, oils, fat, 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, dust-, oil- and fat-free. With acetone or isopropanol you receive good results.

DOSAGE

- A fully automatic proportioning is possible.

STICKING-SLIT

- Optimal sticking-slit lies between 1 - 6 mm according to surface to be glued, material extension, tension and mechanical load.

POWDER DEPOSITION AND COATING-PROCESSES

- Merbenit SF50 can be exposed to increased temperatures on a short-time basis after curing. Tests at +200 °C, 10 minutes or +180 °C, 30 minutes, showed no destruction of the polymer. Using paints based on alkyd resins the drying process may be retarded. The varnish should be applied to the sealant within 4 hours. Optimal results are obtained with a wet-on-wet application. Can be painted anytime, after surface treatment with acetone.

CLEANING

- Cleaning not cured sealant: immediately with grain paper and isopropanol.

Cleaning of cured sealant: mechanically.

SMOOTHING OF THE JOINT

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

STORAGE

- In original packaging well closed, dry, protected from light and cool, fifteen month storable.

PACKAGING FORMS

- 290 ml cartridge, 20 L hobbocs, 180 L drums and 600 ml sausages available on request.

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.

Our information is based on experiences in lab and practice. Their publication occurs, however, without takeover of a liability for damages and losses which are to be put down to these information, there the practical application conditions lying outside of the control of the enterprise. The user is not released from the necessity, to carry out own attempts for the planned applications under practical conditions. Due to the different materials, processing methods and local factors, onto which we have no influence have, no guarantee- also in patent-legal respect -can be taken over. We recommend therefore sufficient own attempts. By the way we refer to our General Business Conditions. Technical changes reserved. Contents examined and released by merz+benteli ag, CH - Niederwangen/Berne