

Product information | *Merbenit XS 55*

Merbenit XS 55 is an elastic adhesive and sealant on the basis of MS-Hybrid polymer which has an especially high tensile strength. Many possible applications, 1-component, moisture-curing, strong adherence and stable.

Product advantages:

- 1-component
- Easy processing
- Free of solvents, isocyanate and silicones
- Very high tensile strength
- Very wide spectrum of adherence, also without primers
- Nearly odourless
- Paintable (also wet on wet)
- For powder- or thermo varnishing, resistant on a short-term basis up to +200 °C
- Very stable (thixotropic)
- Corrigible
- Slit- 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 water, salt water, aliphatic solvents, oils, fat, watered inorganic acids and alkalis
- Shock-proof and vibration-firm (shock-absorbent)

Processing:

■ Merbenit XS 55 can be applied directly from the cartridge / sausage (manual or compressed air pistol) as a rounded or triangular caterpillar in stripes. If one side of the material is permeable to diffusion, Merbenit XS 55 can also be applied dimensionally with a spatula.

■ **Examples for flexible adhesion applications:** Signs, strips, diagonal braces, profiles, stiffenings, fixtures, fittings, plates, sheet metals, receptacles, boxes, cabins, disguises, sandwich components, containers, constructions, bottom covers, frames, panels, coverings, shields, cuffs, nosing.

Fields of application: Metal-, apparatus-, machine construction; electronic-, plastic engineering car bodywork-, automotive-, wagon- and container manufacturing.

■ **Well suitable materials:** Steel, high-grade steel, aluminum, alu-anodized, brass, copper (for brass and copper, not suitable in wet storage), glass, ceramics, stone, concrete, ABS (possibly priming), PBT, PVC hard and soft, PPE, PA6.6-30, EPDM, GFK, wood, powder-coated, coated, galvanized, pot-galvanized surfaces.

For materials which tend to stress-cracks, a preliminary test is recommended.



Technical datas | Merbenit XS 55

CHEMICAL BASE

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

TECHNICAL DATAS

Product name	Merbenit XS 55
Colours	white, grey, black
Processing temperature with 50 % rf	+5 °C up to +40 °C
Volume change DIN 52451	approx. 12 %
Consistency	very thixotropic
Density with +23 °C	1.68 +/- 0.03 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 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	56 +/- 3
Modulus elongation at 100 % and +23 °C, DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 1.0 N/mm ²
Tensile strength DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	> 4.5 N/mm ²
Tensile strength DIN 53504 S2, storage during 28 days at +23 °C and 50 % rf	> 5 N/mm ²
Elongation at break DIN 53504	> 700 %

CHEMICAL RESISTANCE

- Good: 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

- On many clean material surfaces, a good adherence is achieved, even without primers. However, a strong influence of media- and moistured load on the neutral polymerisation and the material should always be checked. In this case as well as for porous and difficult surfaces, we always recommend the use of a suitable primer.

SURFACE TREATMENT

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

STICKING-SLIT

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

CLEANING

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

Cleaning of cured sealant: mechanically.

POWDER DEPOSITION AND COATING-PROCESSES

- Merbenit XS 55 can be exposed to increased temperatures on a short-time basis after the curing. Our tests at +200 °C, 10 minutes or +180 °C, 30 minutes showed no destruction of the polymer. For wet spraying tests, watery Acrylic varnishes have shown a good adhesion and varnish picture. Sufficient preliminary tests for both processes are recommended.

SMOOTHING OF THE JOINT

- We recommend to use Merbenit Hybride MS tooling solvent before withdrawing.

STORAGE

- Twelve months, in original packaging closed tightly, in a dry, cool place, protected from light.

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 is available on the security data sheet.

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