

Product information | *Merbenit XS55*

Merbenit XS55 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 XS55 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 XS55 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 body-work-, automotive-, wagon- and container manufacturing.

■ **Well suitable materials:** Steel, highgrade 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.

Merbenit

SWISS MADE

INNOVATIVE HIGH-TECH ADHESIVES AND SEALANTS



Technical Datas | *Merbenit XS55*

CHEMICAL BASE

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

TECHNICAL DATAS

Productname	Merbenit XS55
Colours	white, grey, black / other colours on request
Processing temperature with 50% rf	+5°C up to +40°C
Volume change DIN 52451	≤ 13 %
Consistency	very thixotropic
Density at 23°C / 50% H.R.	1.68 +/- 0.05 g/cm ³
Curing through after 24h / 48h at 23°C / 50% H.R.	≥ 3.5 mm / ≥ 4.5 mm
Temperature resistance	-40 °C up to +90 °C
Shore-A-hardness (DIN 53505) after 3 weeks of storage at 23°C / 50% H.R.	56
Modulus elongation at 100% and 23°C (DIN 53504 S2) Storage during 7 days at 23°C / 50% H.R.	≥ 1.0 N/mm ²
Tensile strength (DIN 53504 S2) Storage during 7 / 21 days at 23°C / 50% H.R.	≥ 4.0 N/mm ² / ≥ 5.0 N/mm ²
Elongation at break (DIN 53504 S2) Storage during 7 days at 23°C / 50% H.R.	≥ 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 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 XS55 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

- 15 months storable from production date in the ideal packaging (Cartridges with Bag in Box)
- 12 months storable from production date without Bag in Box

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

- Important information about work and environmental security is available on the security data sheet.

Our data are based on experiences in laboratory and practice. Its publication occurs without any takeover of damage and loss which are traced back to these data, as the practical conditions of application are beyond the control of the company. The user is not exempt of doing own tests for the intended application under practical conditions. Due to the different materials, application methods and local given facts on which we do not have influence, we cannot give any warranty – also not in patent law aspect. We therefore recommend doing sufficient autonomic tests. In addition we refer you to our General Terms and Conditions. Subject to change without prior notice. Content approved by merz+benteli ag, CH-3172 Niederwangen/Bern