

Product information | *Merbenit HS60*

Merbenit HS60 is a permanently elastic, high shore adhesive based on a MS-Hybrid polymer. Through its wide spectrum of adherence, being free of solvent, isocyanate and silicone, there are almost no restrictions on the applications for Merbenit HS60.

Merbenit HS60 was tested in accordance with DIN EN ISO 846 and fulfilled the Editions of the VDI 6022. It is therefore suitable for use in air conditioned installations.

Product advantages:

- 1-component
- Easy processing
- Free of solvents, isocyanate and silicones
- Very wide spectrum of adherence, including without primers
- Can be applied on moist surfaces or even under water
- Suitable for use in air conditioned installations, according to VDI 6022
- Suitable for use in food related sectors
- Virtually odourless
- Paintable (including wet on wet)
- For powder or thermo varnishing, stable on a short-term basis up to +200 °C
- Stable (thixotropic) up to a joint width of 40 mm
- Corrigible
- Slit and crack-bridging
- Grindable and varnishable
- Permanently elastic from -40 °C to +90 °C
- High mechanical firmness
- Excellent sealing abilities
- Very good weather- and aging 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)

Processing:

■ Merbenit HS60 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 HS60 can be applied dimensionally with a spatula.

■ **Examples for flexible adhesion applications:** 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.

Fields of application:

Metalwork, apparatus, machine construction, electrical, plastic, ventilation engineering and air-conditioning, car bodywork, automotive, wagon and container manufacturing.

■ **Example of suitable materials:** Steel, high-grade steel, aluminum, 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, pot-galvanized surfaces.

With materials which tend to stress/crack, a preliminary investigation is recommended.



Technical datas | Merbenit HS60

CHEMICAL BASE:

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

TECHNICAL DATAS

Product name	Merbenit HS60
Colours	white, grey, black
Processing temperature with 50 % rf	+5 °C up to +40 °C
Volume change DIN EN ISO 10563	≤ 8 %
Consistency	firm
Density with +23 °C	1.54 +/- 0.05 g/cm ³
Curing through after 24h +23 °C/50 % rf	≥ 2.0 mm / ≥ 3.0 mm
Processing time with +23 °C/50 % rf	max. 10 minutes
Temperature resistance after curing	-40 °C up to +90 °C, short-time up to +200 °C
Shore A hardness, DIN 53505, storage with +23 °C and 50 % rf	60
Modulus elongation at 100 % and +23 °C (DIN 53504 S2), storage during 7 days at +23 °C and 50 % rf	≥ 1.2 N/mm ²
Tensile strength (DIN 53504 S2), storage during 7 days at +23 °C and 50 % rf	≥ 2.3 N/mm ²
Elongation at break (DIN 53504)	≥ 300 %

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

PRIMERING

- 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, durable, 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 HS60 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. For wet spraying tests, watery acrylic varnishes have shown good adhesion and varnish. Sufficient preliminary tests for both processes are recommended.

POLISHING OF JOINTS

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

- We recommend using Merbenit Hybride MS tooling solvent before withdrawing.

CLEANING

- Cleaning of non cured sealant: immediately with grain paper and Isopropanol.

Cleaning of cured sealant: mechanically.

STORAGE

- 18 months from production date. Further information on request.

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.