

Product information | Merbenit HT 50

Merbenit HT 50 is a duration-elastic adhesive on the basis of MS-Hybrid polymer with a high tack formulation. For many purposes applicable, one-component, moisture-curing, strong adherence and stable.

Product advantages:

- 1-component
- Easy processing
- Free of solvents, isocyanate and silicones
- High Tack
- 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)

Processing:

■ Merbenit HT 50 can be applied directly from the cartridge (manual or compressed air gun) as a rounding or triangular caterpillar in patrols. If a material side is diffusion-permeable, Merbenit HT 50 can be applied also 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 and protection joints.

Fields: Metal-, apparatus, machine building, electro-, plastic, ventilation and climate technique, automotive-, freight car-, vehicle- and container construction.

■ **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, vanished, galvanized, chromalized and pot-galvanized surfaces.

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



Technical datas | Merbenit HT 50

CHEMICAL BASE

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

TECHNICAL DATAS

Product name	Merbenit HT 50
Colours	white, grey, black
Processing temperature with 50 % rf	+5 °C up to +40 °C
Volume change DIN 52451	approx. 5 %
Consistency	very thixotropic
Density with +23 °C	1.51 +/- 0.03 g/cm ³
Skin forming time with +23 °C, 50 % rf	approx. 7 minutes
Curing through after 24 hours, +23 °C, 50 % rf	approx. 4 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	45 +/- 3
Modulus elongation at 100 % and +23 °C, DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 0.75 N/mm ²
Tensile strength DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 1.7 N/mm ²
Elongation at break DIN 53504	approx. 600 %

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

THE NEW HIGH TACK FORMULATION – TEST FACTS

- In the test a steel ashlar of 3 x 6 cm, 400 g heavy, became coated in the longitudinal direction with 2 side-by-side 5 mm strong adhesive caterpillars, after that put parallel on the axis vertical onto a concrete block, and pressed up to a adhesive layer thickness from 1.5 mm. The 400 g's steel ashlar stays immediately without shifting down. The steel ashlar became loaded on train after 15 minutes with 2 kg, after 30 minutes with 5 kg, after 12 hours with 40 kg, after 24 hours with 70 kg. Except for the elastomer movement there was no shift or elastomer break.

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 HT 50 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.

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, twelve month storable.

PACKAGING FORMS

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

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