

Product information | Merbenit SK 212

HIGH TECH MS HYBRID POLYMER TECHNOLOGY

Merbenit SK 212 is a new, innovative, flexible assembling adhesive with a specific high tack formulation and with a fast hardening mechanism with very good mechanical cohesiveness values. Merbenit SK 212 is used everywhere there, where traditional 1K-flexible adhesives do not guarantee a sufficient instant holding force and fast application holding force. With its specific formulation properties Merbenit SK 212 is ever more frequently an alternative to 2K-reactive assembling adhesives.

Merbenit SK 212 is furthermore suitable for the bond of windshields at vehicles. Certificate Thatcham FMVSS 212.

Product advantages:

- 1-component
- Easy processing
- Free of solvents, isocyanate and silicones
- Very stable (thixotropic) up to 40 mm joint width
- Corrigible
- Divided- and crack-bridging
- Compatible with grinding and varnishing
- Very low shrinkage
- Very fast curing through
- Duration-Elastic of -40 °C to +90 °C
- Very high mechanical cohesiveness
- Very good abilities for sealing
- Very good weather- and ageing resistance
- High resistance against aliphatic solvents, oils, fat, watered inorganic acids and alkalis
- 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
- Non corrosive on surfaces
- Corrosion protecting
- Shock-proof and vibration-firm (shock-absorbent)
- Resistant to thermal extensions and to material stress

Processing:

■ Merbenit SK 212 can be applied directly from the cartridge / sausage (manual or compressed air gun) as a cylindrical caterpillar in patrols.

■ **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, protection joints.

Fields: Metal-, apparatus-, machine building, electro-, plastic, ventilation and climate technique, automotive-, freight car-, vehicle-, 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 SK 212

CHEMICAL BASE

- Fast curing, high viscosity, elastic 1-component sealant and adhesive, based on MS-hybrid-polymer, moisture curing

TECHNICAL DATAS

Product name	Merbenit SK 212
Colour	black
Processing temperature with 50 % rf	+5 °C up to +40 °C
Volume change DIN 52451	< 5 %
Consistency	very thixotropic
Density with +23 °C	1.35 +/- 0.03 g/cm ³
Skin forming time with +23 °C, 50 % rf	approx. 3 minutes
Curing through after 24 hours, +23 °C, 50 % rf	≥ 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	58 +/- 3
Modulus elongation at 100 % and 23 °C, DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 1.4 N/mm ²
Tensile strength DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 2.5 N/mm ²
Elongation at break DIN 53504	≥ 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

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 SK 212 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.

- Please pay attention to special instructions for the fitting out of vehicle windshields.

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