

Product information | *Merbenit 2K 10*

Merbenit 2K 10 is a new, innovative sealant and adhesive with a specific fast curing formula for controlled polymer networking. Suitable for high adhesive caps or sealing compound joints.

Merbenit 2K 10 cures also with humidity-impermeable materials, for example metal, plastics, glass and coated surfaces within 4 hours for sufficient load.

The fast curing combined with excellent tensile strength and elongation at break values open a wide field for the Merbenit 2K 10 and make it suitable where 1-component sealants and adhesives, for example, MS, PU, silicone (cross-linking-moisture) present problems through slower curing.

Product advantages:

- Neutral curing system
- Very wide adherence spectrum, including without primers
- No mix or interference (easy mix)
- 250 ml version can be processed with a regular 1K sealing compound gun
- Free of solvents, isocyanate and silicones
- Very stable (thixotropic) up to 40 mm
- Slit- and crack-bridging
- Compatible with grinding and varnishing
- Very high elongation at break
- Fast curing
- Duration-Elastic of -40 °C to +90 °C
- High mechanical cohesiveness
- 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
- Non corrosive on surfaces
- Corrosion protecting
- Shock-proof and vibration-firm (shock-absorbent)
- Nearly odourless

Processing:

- Merbenit 2K 10 can be applied directly from the cartridge (manual or compressed air gun) as a cylindrical caterpillar in strips.

■ **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 and joints.

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

■ **Suitable materials including:** Steel, high-grade steel, aluminium, alu-anodized, brass, copper (caution with high temperatures due to solar radiation), glass, ceramics, stone, wood, concrete, powder-coated, vanished, galvanized, chromalized and pot-galvanized surfaces.

■ With sealing compounds of all kinds, pre-tests and the use of a suitable primer are recommended, as for example: acrylic glass, ABS (possible primers), PBT, PVC hard and soft, PPE, PA6.6-30, EPDM, GFK (materials which all tend to stress-crack, a preliminary investigation is recommended).



Technical datas | Merbenit 2K 10

CHEMICAL BASE

- Fast curing, high viscosity, elastic 2-component sealant and adhesive, based on MS-hybrid-polymer, neutral curing system

TECHNICAL DATAS

Product name	Merbenit 2K 10
Colours	black, grey
Processing temperature with 50 % rf	+5 °C up to +40 °C
Volume change DIN 52451	approx. 10 %
Consistency	very stable in joints up to 40 mm width
Component A (Density with +23 °C)	1.37 g/cm ³ +/- 0.03 g/ml
Component B (Density with +23 °C)	1.36 g/cm ³ +/- 0.03 g/ml
Application time at +23 °C, 50 % rf	approx. 25-45 minutes
Temperature stability after curing	-40 °C up to +90 °C, short-time up to +120 °C
Shore A hardness, DIN 53505, storage at +23 °C and 50 % rf	4 hours approx. shore A 15-20 7 days approx. shore A 40-45 (100 % reached)
Modulus elongation at 100 % and +23 °C, DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 0.7 N/mm ²
Tensile strength DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf, reaches after 4 hours approx. 50 % of the tensile strength	approx. 2.0 N/mm ²
Elongation at break DIN 53504	approx. 500 %

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

EASY CARTRIDGES AND STATIC MIXER

1. Open the cartridge, insert cartridge into the gun, press as long as both components effluence equal. Wipe off excess.
2. Put on static mixer
3. Please ensure the sealing compound, which effluence in front of the static mixer, has a consistent bright-grey or black colour. The first 5 cm are to be discarded. Do not put more than 3 bar pressure with pneumatic guns.

PRIMER

- With many clean material surfaces a good liability without primers is achieved. However, it should be checked whether a strong media- and moisture-load influence on the cross-linked polymer and material. In this case and with 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.

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 2K 10 can be exposed to increased temperatures at short notice after the curing. On tests at +180 °C, 20 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.

SMOOTHING OF THE JOINT

- We recommend before stripping Merbenit Hybrid MS to use joint soapy solution.

CLEANING

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

Cleaning of cured sealant: mechanically.

STORAGE

- In original packaging well closed, dry, protected from light and cool, twelve months storable.

PACKAGING FORMS

- 250 ml cartridge, 400 ml cartridge side-by-side, 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 contained in the security data sheets.

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