

Product information | *Merbenit 2K 20*

Merbenit 2K 20 is a 2 component self-levelling potting compound a MS-Hybrid-Polymer base and cures both in thick coatings and air moisture impervious materials, as for example, metal, plastics, glass and coated surfaces within 4 hours for sufficient load. The open time of approximately 30 minutes allows good processing and an optimal filling out of the potting compound, combined with a rapid construction of the firmness. Since Merbenit 2K 20 is isocyanate-free, no risk withstands this, however, on blistering as this can be the case at 2K-polyurethane-systems on condition of, that at the interference of the two components no air is brought into the system.

Product advantages:

- Neutral curing system
- Very wide adherence spectrum, also without primers
- No need of a special 2K gun
- Free of solvents, isocyanate and silicones
- Self-levelling
- Divided- and crack-bridging up to 2 mm
- Compatible with grinding and varnishing
- Very high elongation at break
- Very fast and homogeneous curing through
- 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
- Non corrosive on surfaces
- Corrosion-Protecting
- Shock-proof and vibration-firm (shock-absorbent)
- Nearly odourless

Processing:

- **Examples for horizontal flexible sealing, covering, seal of:** Plates, sheet metals, receptacles, boxes, cabins, disguises, sandwich components, containers, bottom covers, frames, panels, coverings, shields and cuffs.
- **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, aluminum, 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.
- At 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 (i materials which tend to stress-cracks, a preliminary investigation is recommended).



INNOVATIVE HIGH-TECH ADHESIVES AND SEALANTS



Technical datas | Merbenit 2K 20

CHEMICAL BASE

- Fast curing, self-levelling, elastic 2-component potting compound based on MS-hybrid-polymer, neutral curing system

TECHNICAL DATAS

Product name	Merbenit 2K 20
Colour	black
Processing temperature with 50 % rf	+5 °C up to +40 °C
Volume change DIN 52451	< 2 %
Consistency	self-levelling
Component A (Density at +23 °C)	1.37 g/cm ³ +/- 0.03 g/ml
Component B (Density at +23 °C)	1.36 g/cm ³ +/- 0.03 g/ml
Application time at +23 °C, 50 % rf	approx. 30 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	7 days shore A approx. 27 21 days shore A approx. 30
Modulus elongation at 100 % and +23 °C, DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 0.4 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. 1.0 N/mm ²
Elongation at break DIN 53504	approx. 450 %

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 closing of the cartridge, insert cartridge to the gun, press as long as both components effluence equal. Wipe off excesses.
2. Put on static mixer.
3. Please pay attention, that the sealing compound, which effluence in front of the static mixer should have a consistent bright-black colour. The first 5 cm are to be discarded. Do not put on more than 3 bar pressure with pneumatic gun-presses.

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. **Potting depth up to 100 mm.**

POWDER DEPOSITION AND COATING-PROCESSES

- Merbenit 2K 20 can be exposed to increased temperatures at short notice after the curing. At our attempts 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 the stripping of the 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, six months storable.

PACKAGING FORMS

- 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.

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