

Merbenit E20

With a density of 0.70 g/cm³ Merbenit E20 is much lighter than other products. This permanent elastic adhesive and sealant based on SMP is suitable for many industry and automotive applications. Other special features are the noise insulating and vibration damping properties.

Product advantages

- Very low density
- Low thermal conductivity
- Noise insulating and vibration damping
- Compressible
- Simple processing
- Tolerance compensating
- Permanently elastic and stress compensating
- Free of solvents, isocyanates and silicones

Technical data

Chemical base	Silane modified polymer
Mechanism of curing	1 comp. moisture curing
Shore A hardness, DIN 53505	36
Modulus elongation at 100%, DIN 53504 S2	ca. 1.5 N/mm ²
Elongation at break, DIN 53504 S2	ca. 100%
Tensile strength, DIN 53504 S2	ca. 1.6 N/mm ²
Consistency	stable
Tooling time	max. 35 min.
Curing rate after 24h	≥ 3.5 mm
Curing rate after 48h	≥ 5.0 mm
Density	0.70 ± 0.05 g/cm ³
Volume change, DIN EN ISO 10563	≤ 2%
Temperature resistance after curing	- 40 °C to + 80 °C
Application temperature	+ 5 °C to + 40 °C

All measurements were performed under normal conditions (23 °C and 50 % relative humidity).

The data are based on the results after 7 days.

After production of further batches, slight adjustments can occur in the product specification.

Application

Absorption of vibrating elements, isolation of voids and noise, heat and cold insulation in vehicle constructions. Car body sealings and weakly stressed or large area bonding in the car interior.

Substrate range

Suitable materials are metals, powder-coated, varnished, galvanised, anodised, chromed or hot zinc dipped surfaces, various plastics, ceramics, stone, concrete and wood. Due to the large variety of different plastics and compositions as well as materials which are susceptible to cracks, preliminary tests are recommended.

Technical data sheet Merbenit E20

Substrate preparation

To achieve reproducible results the substrate has to be pre-treated according to the state of technology. All undefined surfaces must be removed using suitable methods. Apply the adhesive/sealant promptly to the prepared surface. Depending on the substrate and the expected requirements a mechanical or chemical pre-treatment is recommended respectively cleaning with rubbing alcohol, isopropyl or acetone. For application the surface has to be clean, durable and free of dust, oil and grease. The compatibility with adjacent materials, coatings etc. must be determined in advance.

Adhesion promoter

With most materials a good adhesion is achieved even without adhesion promoter. In the case of high moisture influence we recommend our Adhesion Promoter V40 on non-porous materials, Adhesion Promoter V21 on open porous materials. For thermo-painted or powder-coated surfaces and plastic materials we recommend our Adhesion Promoter V40. Preliminary tests are recommended.

Processing

- Can be applied directly from the bag using a suitable caulking gun (manual, air, battery)
- Cut the nozzle tip according to the joint width
- Apply the material bubble free into the joint
- The joint must be applied within the tooling time
- V-nozzles are recommended for bonding applications
- For large area bonds the product can be applied with a notched trowel on the surface
- The bonding must take place within the processing time
- Depending on the bonding surface, material expansion, tension and mechanical stresses a layer thickness of 1 - 6 mm is recommended
- Non-cured adhesive can be removed with rubbing alcohol or isopropyl
- Cured adhesive can only be removed mechanically

Paint compatibility

Due to the diversity of varnishes and paints on the market we recommend preliminary tests. Using paints based on alkyd resins may delay the drying process.

If applied on painted or plastered substrates a sufficient drying time of the paint / plaster must be kept (in general 10 days). After cleaning with acetone joints can be varnished at any time.

Chemical resistance

- Good against water, aliphatic solvents, oils, grease, diluted inorganic acids and alkalis
- Moderate against esters, ketone and aromatics
- Not resistant against concentrated acids and chlorinated hydrocarbons
- Weatherproof and resistant to aging

Colours

- white
- other colours on request

Packaging

- Sausages of 600 ml in boxes of 12 units

Shelf life and storage conditions

- 12 months from date of production
- Store cool and dry (10 - 25 °C)
- Further information on request

Work and environmental safety

Important information about work and environmental safety is available on the material safety data sheet.

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