

Merbenit 2K10

Merbenit 2K10 is a 2-component adhesive that achieves regardless of the humidity high strength. Adheres thanks to SMP base to various, even on moisture-impermeable materials and substrates. Merbenit 2K10 can be processed very long.

Product advantages

- Chemical neutral polymerisation
- Wide adhesion range
- Free of solvents, isocyanates and silicones
- Paintable
- Fast curing through at room temperature
- Permanently elastic from - 40°C to + 90°C
- Very good sealing properties
- Excellent weather resistance and durability
- Corrosion protecting
- Impact and vibration resistant (shock absorbing)
- Odourless
- Tolerance compensating

Technical data

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| Chemical base | Silane modified polymer |
| Mechanism of curing | 2 comp. moisture curing |
| Shore A hardness, DIN 53505 | 45 |
| Modulus elongation at 100%, DIN 53504 S2 | ca. 1.3 N/mm ² |
| Elongation at break, DIN 53504 S2 | ca. 300% |
| Tensile strength, DIN 53504 S2 | ca. 2.4 N/mm ² |
| Consistency | stable |
| Tooling time | max. 30 min. |
| Density Component A | 1.37 ± 0.05 g/cm ³ |
| Density Component B | 1.36 ± 0.05 g/cm ³ |
| Volume change, DIN EN ISO 10563 | ≤ 10% |
| Temperature resistance after curing | - 40 °C to + 90 °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 3 months.

Application

Flexible bonding in the areas of metal, apparatus and machine construction, plastics technology, air-conditioning and ventilation systems, car body, wagon, vehicle and container construction. Tension peaks on assembly parts are avoided by plane bonding. The neutral polymerisation allows a connection without thermal or chemical pre-treatment of the assembly parts.

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 2K10

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 moisture influence on absorbent or difficult substrates, we always recommend the application of Adhesion Promoter V40 in advance. For thermo-painted or powder-coated surfaces and plastic materials we recommend our Adhesion Promoter V40. Preliminary tests are recommended.

Processing

- Processing out of cartridges:
Open closure of the cartridge. Place cartridge in proper gun and squeeze until both components are flowing evenly. Wipe off excess. Place the static mixer nozzle and apply the material. Ensure the exiting material has a uniform colour (light grey or black).
- For application with a pneumatic gun a maximum pressure of 3 bar shall be used
- Can be applied with automatic dispensing equipment
- Depending on the bonding surface, material expansion, tension and mechanical stresses a layer thickness of 1 - 6 mm is recommended
- Mixing ratio 1:1
- 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. After cleaning with acetone joints can be varnished at any time. For burning process the material can be exposed, when fully cured, in short term to elevated temperatures.

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

Colours

- black
- grey
- other colours on request

Packaging

- Mixpac cartridges of 250 ml in boxes of 12 units
- Double cartridges of 2x 200 ml in boxes of 15 units

Shelf life and storage conditions

- 15 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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