

Merbenit HM14

Merbenit HM14 is an elastic adhesive with excellent sealing properties. Universally applicable thanks to SMP base.

Product advantages

- Wide adhesion range
- Simple processing
- Long open time
- Free of solvents, isocyanates and silicones
- Odourless
- Compatible with paints
- Chemical neutral polymerisation
- Grindable and paintable
- Permanently elastic, good mechanical strength
- Very good sealing properties
- Non-corrosive on surfaces
- Vibration absorbing

Technical data

Chemical base	Silane modified polymer
Mechanism of curing	1 comp. moisture curing
Shore A hardness, DIN 53505	40
Modulus elongation at 100%, DIN 53504 S2	ca. 0.9 N/mm ²
Elongation at break, DIN 53504 S2	ca. 300%
Tensile strength, DIN 53504 S2	ca. 1.3 N/mm ²
Consistency, DIN EN ISO 7390	Stable, ≤ 3 mm
Tooling time	max. 20 min.
Curing rate after 24h	≥ 2.0 mm
Curing rate after 48h	≥ 3.0 mm
Density	1.60 ± 0.05 g/cm ³
Volume change, DIN EN ISO 10563	≤ 5%
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).

Application

Flexible bonding and sealing in the areas of metal, apparatus and machine construction, plastics technology, air-conditioning and ventilation systems, car body, wagon, vehicle and container construction. Weakly stressed connection joints and bonding applications.

Substrate range

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

Meets the standards

- EMI CODE EC1Plus R
- Eurofins IAC Gold

Technical data sheet Merbenit HM14

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, isopropanol or acetone. For application the surface has to be clean, durable and free of dust, oil and grease.

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 thermopainted or powder-coated surfaces we recommend our Adhesion Promoter V40. In the case of special plastics an improvement of the adherence can be achieved with Adhesion Promoter V30.

Processing

- Can be applied directly from the cartridge / sausage using a suitable caulking gun (manual, air, battery)
- Cut the nozzle tip according to the joint width
- V-Nozzles are recommended for bonding applications
- Depending on the bonding surface, material expansion, tension and mechanical stresses a layer thickness of 1 - 6 mm is recommended
- For vapor permeable substrates the material can be applied in a large area using a notched trowel
- Can be applied with automatic dispensing equipment
- Non-cured adhesive can be removed with rubbing alcohol or isopropanol
- 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
- white
- other colours on request

Packaging

- Cartridges of 290 ml in carton of 12 units
- Sausages of 600 ml in carton of 12 units

Shelf life and storage conditions

- 12 months from date of production
- Store cool and dry
- Further information on request

Work and environmental safety

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

merz+benteli ag

Freiburgstrasse 616
CH - 3172 Niederwangen
Tel. +41 31 980 48 48
Fax +41 31 980 48 49
info@merz-benteli.ch
www.merz-benteli.ch

Our information is based on experiences in lab and practice. Their publication occurs, however, without takeover of a liability for damages and losses which are to be put down to these information, as there the practical application conditions are lying outside of the enterprise's control. The user is not released from the necessity to carry out own attempts for the planned applications under practical conditions. Due to the different materials, processing methods and local factors onto which we have no influence, no guarantee – also in patent-legal respect – can be taken over. We recommend therefore sufficient own attempts. By the way we refer to our General Business Conditions. Technical changes reserved. Contents examined and released by merz+benteli ag, CH - Niederwangen/Berne

