

Merbenit RV55

Merbenit RV55 is an elastic, high-strength sealing adhesive for constructions where fire safety is key. Suitable for bonding in the outdoor and indoor areas of rail vehicles. Tested according to EN 45545-2, requirement sets R22 + R23. Classifies as the highest hazard level HL 3.

Product advantages

- Fire behavior according to EN 45545-2, R22 + R23, Hazard Level 1,2 + 3
- Resistant to powder and thermal coating for short periods up to +200°C
- High UV- aging and weathering resistance
- Long processing time
- Very broad adhesion spectrum
- Paint compatibility
- Free from solvents, isocyanates, silicones, phthalates, tin
- Free from halogenated flame retardants
- Very low emission
- Non-corrosive to surfaces
- Sandable and paintable
- Easy processing
- Tolerance compensative

Technical data

Chemical base	silan modified polymer
Mechanism of curing	1K moisture curing
Tooling time	max. 30 min.
Curing rate after 24h	≥ 2.0 mm
Curing rate after 48h	≥ 3.5 mm
Shore-A-hardness, DIN ISO 7619-1	58
Tensile strength DIN 53504 S2*	ca. 3.0 N/mm ²
Modulus elongation at 100%, DIN 53504 S2 *	ca. 2.6 N/mm ²
Elongation at break, DIN 53504 S2 *	ca. 170%
Density	1.52 ± 0.05 g/cm ³
Volume change, DIN EN ISO 10563	≤ 3 %
Temperature resistance after curing	- 40°C to + 90°C
Application temperature	+ 5°C to + 40°C

<p>All measurements were performed under standard conditions (23°C and 50% relative humidity). The data are based on measurements after 3 months.</p>

Application

Flexible bonding in the fields of metal, apparatus and mechanical engineering, plastics, ventilation and air-conditioning technology, bodywork, wagon, vehicle and container construction. Especially suitable and tested for flame-retardant sealing or bonding of bonding of components in the interior and exterior of rail vehicles in accordance with fire protection standard EN 45545-2, requirement sets R22+R23, whereby the highest requirements oxygen index, smoke density and the release of toxic substances. toxic substances are fulfilled. Merbenit RV55 meets the the highest requirements for the hazard level HL 3, which allows the which entitles it to be used in all operating classes 1-4 (e.g. vehicles without the possibility of evacuation, which are by suitable for tunnels by design). Merbenit RV55 is label-free, low-odor and very easy to process.

Substrate range

Well suited materials are metals, powder coated, painted, galvanized, anodized, chromated or hot-dip galvanized surfaces hot-dip galvanized surfaces, various plastics, ceramics, stone, concrete and wood. Due to the large variety of different and compositions, as well as for materials that are prone to stress materials that are prone to stress cracking, preliminary tests are recommended.

Meets the standards

- EN 45545-2 HL 1,2,+3, R22+23
- EMICODE EC1Plus
- Eurofins IAC Gold

Technical data sheet Merbenit RV55

Substrate preparation

In order to achieve reproducible results, the substrate must be prepared. The substrate must be prepared according to the state of the art. The substrate must be load-bearing, free of dust, oil and grease before the adhesive, the substrate must be load-bearing and free of dust, oil and grease. All undefined surfaces must be removed by means of a suitable process. removed by a suitable process and the adhesive and sealant must be applied promptly to the prepared surface. For this purpose depending on the part to be joined and the expected requirements, a mechanical and/or chemical pretreatment or cleaning with cleaning alcohol, isopropanol or acetone is recommended. is recommended. The compatibility with adjacent materials, coating agents, etc. must be clarified in advance.

Adhesion promoter

For many materials, good adhesion is achieved even without adhesion promoter. In the case of high moisture exposure, the use of Adhesion Promoter V40 on closed-pore materials and Adhesion Promoter V21 on open-pore materials. For thermolacquered or powder-coated surfaces as well as plastics, we recommend Adhesion Promoter V40. Preliminary tests are recommended. Note: Adhesion Promoter and thinly packed sealant leave stains which cannot be completely removed can no longer be completely removed.

Processing

- Can be applied directly from the cartridge / bag by means of a suitable gun (hand gun, compressed air gun, battery gun)
- Cut the nozzle tip according to the joint width
- In case of gluing, application by means of a triangular nozzle is recommended.
- Depending on the bonding surface, material expansions, tensions and mechanical loads, a layer thickness of 1-6mm is recommended
- Fully automatic dispensing possible
- For diffusion-open substrates, the compound can be applied by means of a applied over a large area by means of a notched trowel
- The bonding must be done within the processing time within the processing time
- Uncured adhesive can be removed with cleaning alcohol or isopropanol or isopropanol
- Cured adhesive can only be removed mechanically by mechanical means

Paint compatibility

Due to the variety of paints and coatings available on the market, we recommend preliminary tests. With alkyd resin paints drying delays may occur. After cleaning with acetone can be recoated at any time. For stoving processes After complete curing, the compound may be exposed to elevated temperatures for a short time after complete curing.

Chemical resistance

Good against water, aliphatic solvents, oils, greases, dilute inorganic acids and alkalis Moderately resistant to esters, ketones and aromatics Not resistant to concentrated acids and chlorinated hydrocarbons. Hydrocarbons Resistant to weathering and aging

Colours

- light grey
- white
- black

Packaging

Cartridges of 290 ml in boxes of 12 pieces

Shelf life and storage conditions

- 18 months from date of production in original packaging
- Store in a cool, dry place (10-25°C)
- Further information on request

Work and environmental safety

For important information on occupational and environmental safety and disposal, please refer to the safety data sheet

merz+benteli ag

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

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