## Technical data sheet

# merz+benteli ag

## m+b hybrid S-22

m+b hybrid S-22 is a very low-emission, universally usable, elastic sealant based on SMP for inner and outdoor areas. Adheres excellently on smooth or porous substrates.

#### **Product advantages**

- Compatible with paints
- Simple processing
- High elasticity, good mechanical strength
- Long processing time
- Free of solvents, isocyanates and silicones
- Odourless
- Non-corrosive on surfaces
- Impact and vibration resistant (shock absorbing)
- Very wide adhesion range

#### **Technical data**

Chemical base	Silane modified polymer
Mechanism of curing	1 comp. moisture curing
Shore-A-hardness, DIN 53505	24
Modulus elongation at 100%, DIN 53504 S2 *	ca. 0.5 N/mm²
Elongation at break, DIN 53504 S2 *	ca. 500%
Tensile strength, DIN 53504 S2 *	ca. 0.7 N/mm²
Tooling time	max. 30 min.
Curing rate after 24h	≥ 2.0 mm
Curing rate after 48h	≥ 3.0 mm
Density	1.53 ± 0.05 g/cm <sup>3</sup>
Volume change, DIN EN ISO 10563	≤ 3%
Temperature resistance after curing	- 40 °C to + 90 °C
Application temperature	+ 5 °C to + 40 °C
Movement capability	25%
Consistency, DIN EN ISO 7390	Standfest, ≤ 3 mm
Elastic recovery, DIN EN ISO 7389, at elongation of 100%	≥ 70%

All measurements were performed under normal conditions (23  $^{\circ}\text{C}$  and 50 % relative humidity).

## Application

Suitable for connection joints, movement and facade joints in building construction on concrete, bricking, stucco, wood, metal and several plastics.

## 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 to cracks, preliminary tests are recommended. Not suitable for natural stone work, for use on deck strips of copper and window sealings. In direct contact with insulation plates or bituminous surfaces preliminary tests and/or a consultation of our technical department are recommended.

### Meets the standards

- EMICODE EC1Plus R
- ISO 11600-F25-LM

<sup>\*</sup> The data are based on measurements after 7 days.

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#### Substrate preparation

Perfect sealing work requires correct joint dimensions and pretreatment of the surfaces. For dimensioning of building construction joints see DIN standard 18540 and SIA standard 274. For maximum adhesion strength a dry, clean, grease free and structurally proper surface is required. On smooth, nonabsorbent substrates a pre-cleaning with rubbing alcohol or isopropyl is recommended. Porous surfaces may need to be grinded, free of dust and cleaned. During renovations the old sealant must be removed as much as possible. The chemical base of the old sealant must be clarified. We recommend to consult our application engineers. 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 V21 in advance. For nonabsorbent substrates we recommend the application of Adhesion Promoter V2. For thermo-painted or powder-coated surfaces and plastic materials we recommend our Adhesion Promoter V40. Preliminary tests are recommended. Note: Adhesion promoter and thinly elapsed sealant leave stains that can not be completely cleaned.

### **Processing**

- Prepare the joint according to the substrate preparation and pre-treatment description
- Observe and comply with the expiry date of all materials used
- Cut the nozzle tip according to the joint width
- Place container into suitable gun (manual, air, caulking gun)
- Apply the material bubble free into the joint
- The joint must be applied within the tooling time
- For joint smoothing we recommend using our tooling agent and if necessary joint tools
- Non-cured sealant can be removed with rubbing alcohol or
- Cured sealant 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

#### Colours

- concrete grey
- pebble grey
- white

#### Packaging

Sausages of 600 ml in boxes of 12 units

### Shelf life and storage conditions

- 18 months from date of production in original packaging Store cool and dry (10 25  $^{\circ}$ 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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