Technical data sheet

Merbenit FS30

Merbenit FS30 is a hardly inflammable, elastic and at the same time paintable sealant. Adheres thanks SMP base to various materials and surfaces. Merbenit FS30 fulfils highest branch standards and also the requirements of the International Maritime Organisation IMO.

Product advantages

- Compatible with paints
- Low shrinkage
- Permanently elastic from - 40°C to + 90°C
- Very good sealing properties
- Free of solvents, isocyanates and silicones
- Simple processing
- Odourless
- Meets numerous fire safety standards
- Very suitable for Minergie-ECO

Technical data

Chemical base	Silane modified polymer
Mechanism of curing	1 comp. moisture curing
Shore A hardness, DIN 53505	26
Modulus elongation at 100%, DIN 53504 S2	ca. 0.9 N/mm²
Elongation at break, DIN 53504 S2	ca. 225%
Elastic recovery, DIN EN ISO 7389, at elongation of 60%	≥ 60%
Tensile strength, DIN 53504 S2	ca. 1.5 N/mm²
Movement capability	20%
Consistency, DIN EN ISO 7390	Stable, ≤ 3 mm
Tooling time	max. 15 min.
Curing rate after 24h	≥ 3.0 mm
Curing rate after 48h	≥ 4.5 mm
Density	1.47 ± 0.05 g/cm³
Volume change, DIN EN ISO 10563	≤ 3%
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 7 days.

Application

Suitable for connection joints, sealing of cable channels, pipe conduits and casings as well as general fire barriers and covers.

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.

Meets the standards

- DIN 4102 B1
- EMICODE EC1Plus R
- Eurofins IAC Gold
- IMO FTPC Parts 2+5
- ISO 11600-F20-HM
- VKF fire protection code number 5.3
- VKF fire resistance class S90
- eco-bau 1st priority ECO-BKP

Technical data sheet Merbenit FS30

Substrate preparation
Perfect sealing work requires correct joint dimensions and pre-treatment 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, non-absorbent 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 non-absorbent 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 isopropyl
- 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
- black
- grey
- white
- other colours on request

Packaging
- Cartridges of 290 ml in boxes of 12 units
- Sausages of 600 ml in boxes of 12 units

Shelf life and storage conditions
- 18 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.

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

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

As of: 06.09.2017