

Merbenit UV27

Merbenit UV27 is an elastic joint sealant. Adheres thanks SMP base to various materials and especially to self cleaning glass. Very resistant against environmental influences and UV radiation. Merbenit UV27 fulfils the requirements of the International Maritime Organisation IMO.

Product advantages

- Extremely high UV, ageing and weather resistance
- Free of solvents, isocyanates and silicones
- Permanently elastic from - 40°C to + 90°C
- Wide adhesion range
- Compatible with paints
- Impact and vibration resistant (shock absorbing)
- Odourless

Technical data

Chemical base	Silane modified polymer
Mechanism of curing	1 comp. moisture curing
Shore-A-hardness, DIN 53505	20
Modulus elongation at 100%, DIN 53504 S2 *	ca. 0.5 N/mm ²
Elongation at break, DIN 53504 S2 *	ca. 500%
Tensile strength, DIN 53504 S2 *	ca. 1.5 N/mm ²
Tooling time	max. 15 min.
Curing rate after 24h	≥ 3.0 mm
Curing rate after 48h	≥ 4.0 mm
Density	1.46 ± 0.05 g/cm ³
Volume change, DIN EN ISO 10563	≤ 7%
Temperature resistance after curing	- 40 °C to + 100 °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 °C and 50 % relative humidity).

* The data are based on measurements after 7 days.

Application

Sealing in areas of intense weather conditions and UV strain. Suitable for connection joints, movement joints in solar technology, air conditioning and ventilation, vehicle and apparatus construction, cabin construction, marine (e.g. sealing of portholes) and offshore applications. Sealing in wood, metal and plastic windows. Sealing on self cleaning glass.

Substrate range

Suitable materials are metals, powder-coated, varnished, galvanised, anodised, chromed or hot zinc dipped surfaces, various plastics, ceramics, glass, 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.

Meets the standards

- IMO FTPC Parts 2+5
- ISO 11600-G25-LM
- SGG Bioclean

Technical data sheet Merbenit UV27

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 high moisture influence we recommend our Adhesion Promoter V40 on non-porous materials, Adhesion Promoter V21 on open porous materials. For thermo-painted or powder-coated surfaces and plastic materials we recommend our Adhesion Promoter V40. Preliminary tests are recommended.

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. Due to the diversity of varnishes and paints on the market, we recommend preliminary tests.

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

Packaging

- Cartridges of 290 ml in boxes of 12 units
- Sausages of 600 ml in boxes of 12 units
- Hobbcocks of 20 liter on palet of 16 units

Shelf life and storage conditions

- 15 months from date of production in original packaging
- 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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