

## Merbenature

**Merbenature is an especially resource-saving sealant based on SMP. It consists of more than 50 % renewable raw material, is emission-free and environmentally friendly. Merbenature is universally applicable in inner and outdoor areas and easy to handle.**

### Product advantages

- Wide adhesion range universal use
- Adheres on many substrates without adhesion promoter
- Compatible with paints
- Long open time
- Biobased raw materials, certified according ASTM D 6866:2012-01
- Odourless
- Very suitable for Minergie-ECO

### Technical data

Shore A hardness, DIN 53505	25
Modulus elongation at 100%, DIN 53504 S2	ca. 0.4 N/mm <sup>2</sup>
Elongation at break, DIN 53504 S2	ca. 500%
Elastic recovery, DIN EN ISO 7389, at elongation of 100%	80%
Tensile strength, DIN 53504 S2	ca. 1 N/mm <sup>2</sup>
Movement capability	25%
Consistency, DIN EN ISO 7390	Stable, ≤ 3 mm
Tooling time	max. 40 min.
Curing rate after 24h	≥ 2.0 mm
Curing rate after 48h	≥ 2.5 mm
Density	1.32 ± 0.05 g/cm <sup>3</sup>
Volume change, DIN EN ISO 10563	≤ 3%
Temperature resistance after curing	- 40 °C to + 80 °C
Application temperature	+ 5 °C to + 40 °C

All measurements were performed under normal conditions (23 °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 cracks, preliminary tests are recommended. Not suitable for natural stone work, for use on deck strips of copper and window sealings.

### Meets the standards

- ASTM D 6866:2012-01
- EMICODE EC1Plus R
- Eurofins IAC Gold
- ISEGA (food production area)
- ISO 11600-F25-LM
- eco-bau 1st priority ECO-BKP



# Technical data sheet Merbenature

## 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 isopropanol 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 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. 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 isopropanol
- 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

## Packaging

- Cartridges of 290 ml in carton of 12 units
- Other packaging on demand

## Shelf life and storage conditions

- 9 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

As of: 25.10.2016

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

