

Merbenit UV 27 has been developed with the latest SCGTEC-Polymer technology for various applications of sealing. Merbenit UV 27 resists to highest UV and weather influences. Therefore, Merbenit UV 27 is suitable for glass sealings of all kinds, like portholes for boats, glass sealings in construction sector and self-cleaning glasses like Pilkington Active and Saint-Gobain Bioclean can be sealed with Merbenit UV 27. Thanks to the soft-elastic formula, also expansive joints exposed to strong influence of UV and weather can be carried out without any problems. Merbenit UV 27 is examined according to ISO 11600-G-25LM.

## Product advantages:

- 1-component
- Easy processing
- Fast curing
- Permanently elastic from -40 °C to +90 °C
- Free of solvents, isocyanate and silicones
- Very good adherence on numerous materials
- Tested successfully on self-cleaning glasses, e.g. Pilkington Active, Saint Gobain Bioclean
- Extremely high resistance against water, salt water, UV, ageing and weather
- Good mechanical skills
- Fulfils ISO 11600-G-25LM (also on self-cleaning glasses)
- High resistance against aliphatic solvents, oils, fat, watered inorganic acids and alkalis
- Excellent product for solar technology, air conditioning and ventilation systems, construction of receptacles, waste water constructions, vehicle engineering, plant engineering, Marine (e.g. sealing and bonding of portholes) and offshore-applications.
- Very wide spectrum of adherences
- Compatible with grinding and varnishing
- Very good sealing abilities
- Shock-proof and vibration-firm (shock-absorbent)
- Nearly odourless

## Processing:

■ Merbenit UV 27 can be applied directly from the cartridge (manual or compressed air pistol) as a rounded caterpillar in stripes. Merbenit UV 27 can also be applied with a spatula, paintbrush or a role.

■ **Examples for flexible adhesion applications:** Merbenit UV 27 is used where high resistance on water, UV and ageing are asked for. Target groups are Industrial firms, assembly- and servicing companies, building- and handcraft companies, shipyards and glazier's workshops.

■ **Well suitable materials are for example:** Steel, high-grade steel, aluminum, alu-anodized, brass, copper (Caution with high temperatures due to solar radiation), glass, wood, concrete, powder-coated, varnished, galvanized, pot-galvanized and electrolytic-dovetailed surfaces. For acrylic, PA, EP and various rubber materials, preliminary tests are highly recommended. Porous materials have to be treated with primer.

With materials which tend to stress-cracks, a preliminary investigation is recommended.



# Technical datas | Merbenit UV 27

## CHEMICAL BASE

- Silane-modified MS-Prepolymer, moisture curing, one-component adhesive and sealant.

## TECHNICAL DATAS

Product name	Merbenit UV 27
Colour	black
Processing temperature with 50 % rf	+5 °C up to +40 °C
Volume change DIN 52451	< 3 %
Consistency	stable in joints up to 40 mm width
Density at +23 °C	1.48 g/cm <sup>3</sup> +/- 0.02 g/ml
Curing through after 24 hours, +23°C / 50 % rf	approx. 2 mm
Skin forming time with +23 °C, 50 % rf	approx. 10 minutes
Temperature resistance after curing	-40 °C up to +100 °C, short-time up to +120 °C
Shore A hardness, DIN 53505, storage with +23 °C and 50 % rf	24 +/-2
Modulus elongation at 100 % and +23 °C, DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	approx. 0.5 N/mm <sup>2</sup>
Tensile strength DIN 53504 S2, storage during 7 days at +23 °C and 50 % rf	≥ 1.5 N/mm <sup>2</sup>
Elongation at break DIN 53504	> 500 %

## CHEMICAL RESISTANCE

- Very good: against water and salt water
- Good: Aliphatic solvents, oils, fats, watered inorganic acids and alkalis
- Moderate: Against esters, ketone and aromatics
- Not resistant: against concentrated acids and chlorinated hydrocarbons
- Completely weather-resistant

## RESISTANCE TO WATER

■ Aluminium-, glass- and high-grade steel have been coated with a sealing caterpillar of 8 x 5 mm. All coated materials have been stored during 7 days at +23 °C and 50 % of relative humidity, after put and left for 90 days in tap water of 21 °C. During this time, the test bodies have been taken out of the storage in water after 30 days and stored directly in 95 °C boiling water for more than 2 hours. After this, they have been put back in the water-bath test. Conclusion: after 90 days, no dissolution of the Elastomer nor infiltration in the outer zone area between the Elastomer and the material could be found.

## PRIMER

■ On many clean material surfaces, a good adherence is achieved, even without primers. However, a strong influence of media- and moistured load on the neutral polymerisation and the material should always be checked. In this case as well as for porous and difficult surfaces, we always recommend the use of a suitable primer.

## SURFACE TREATMENT

■ The surface has to be clean, strong, dust-, oil- and fat-free. Acetone or Isopropanol show good results.

## POWDER DEPOSITION AND COATING-PROCESSES

■ Merbenit UV 27 can be exposed to increased temperatures on a short-time basis after the curing. Our tests at +180 °C, 20 minutes showed no destruction of the polymer. For wet spraying tests, watery Acrylic varnishes have shown a good adhesion and varnish picture. Sufficient preliminary tests for both processes are recommended.

## SMOOTHING OF THE JOINT

■ We recommend to use Merbenit Hybride MS tooling solvent before withdrawing.

## CLEANING

■ Cleaning of not cured sealant: immediately with grain paper and Isopropanol.

Cleaning of cured sealant: mechanically.

## STORAGE

■ 9 months, in original packaging closed tightly, in a dry, cool place, protected from light.

## PACKAGING FORMS

■ 290 mL cartridge, 600 mL saugages, 20 L hobbocs, 180 L drums

## DOSAGE

■ A fully automatic proportioning is possible.

## WORK AND ENVIRONMENTAL SECURITY

■ No dangerous goods, not marking-liable. Important information about working and environmental security is available in the security data sheet.

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, there the practical application conditions lying outside of the control of the enterprise. 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 have, 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