Technical data sheet

Merbenit SK212

Merbenit SK212 is an elastic adhesive with high initial tack and strength. Thanks SMP base especially suitable for bondings where short handling strength is required; for example for bonding windscreens on vehicles. Merbenit SK212 is certified after the branch standards NCAP and FMVSS212.

Product advantages

- Very high initial adhesion
- Free of solvents, isocyanates and silicones
- Adjustable
- Fast complete curing
- Permanently elastic from - 40°C to + 90°C
- Very high mechanical strength
- Very good sealing properties
- Very wide adhesion range
- Odourless
- Compatible with paints
- Chemical neutral polymerisation
- Shortly resistant up to +200°C for powder and thermal coating
- Non-corrosive on surfaces
- Impact and vibration resistant (shock absorbing)
- Resists thermal expansion and material tension

Technical data

Chemical base	Silane modified polymer
Mechanism of curing	1 comp. moisture curing
Shore A hardness, DIN 53505	55
Modulus elongation at 100%, DIN 53504 S2	ca. 1.7 N/mm²
Elongation at break, DIN 53504 S2	ca. 300%
Tensile strength, DIN 53504 S2	ca. 3.3 N/mm²
Green Strength	ca. 3700 Pa
Consistency	stable
Tooling time	max. 15 min.
Curing rate after 24h	≥ 3.5 mm
Curing rate after 48h	≥ 4.5 mm
Density	1.35 ± 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 3 months.

Application

Bonding of windscreens in vehicle, wagon and cabin construction. For non-supported bonds and where a fast, continous working process is required. Flexible, immediate supporting bond in the area of metal, apparatus and machine construction, plastics technology, air-conditioning and ventilation systems, car body, wagons, vehicles and container construction.

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

- EMICODE EC1Plus R
- Euro-NCAP frontal impact 64 km/h
- Eurofins IAC Gold
- FMVSS 212 60' drive away time

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Substrate preparation
To achieve reproductible results the substrate has to be pre-treated according to the state of technology. All undefined surfaces must be removed using suitable methods. Apply the adhesive/sealant promptly to the prepared surface. Depending on the substrate and the expected requirements a mechanical or chemical pre-treatment is recommended respectively cleaning with rubbing alcohol, isopropyl or acetone. For application the surface has to be clean, durable and free of dust, oil and grease. For dimensioning of building construction joints see DIN standard 18540 and SIA standard 274. The compatibility with adjacent materials, coatings etc. must be determined in advance.

Adhesion promoter
Windows with ceramic coating must be cleaned with isopropyl or Adhesion Promoter V2. Windows without ceramic coating must be cleaned with isopropyl and then prepared with adhesion promoter Black Glass. Clean the substrate surface with isopropyl and if necessary pre-treat with adhesion promoter V40. For thermo-painted or powder-coated surfaces and plastic materials we recommend our Adhesion Promoter V40. Preliminary tests are recommended.

Processing
- Can be applied directly from the cartridge / bag using a suitable caulking gun (manual, air, battery)
- The application with thrust piston or telescope is recommended
- V-nozzles are recommended for bonding applications
- Depending on the bonding surface, material expansion, tension and mechanical stresses a layer thickness of 1 - 6 mm is recommended
- The bonding must take place within the processing time
- Can be applied with automatic dispension equipment
- Non-cured adhesive can be removed with rubbing alcohol or isopropyl
- Cured adhesive can only be removed mechanically
- Please follow the application instruction.

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. After cleaning with acetone joints can be varnished at any time. For burning process the material can be exposed, when fully cured, in short term to elevated temperatures.

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
- Sausages of 400 ml in boxes of 12 units

Shelf life and storage conditions
- 15 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.

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As of: 06.09.2017