

Merbenit IA45

Merbenit IA45 is an adhesive for application in very thin lines on one or both sides and which builds up strength very fast. The SMP base provides a very good adhesion even on difficult plastics. Same as all other Merbenit products, Merbenit IA45 is free of solvents.

Product advantages

- Easy processing
- Chemical neutral polymerisation
- Free of solvents, silicones, isocyanates and pungent odours
- Permanently elastic and stress compensating
- No deformation of thin assembly parts due to heat development during curing process
- The use of adhesion promoters (primers) is often not required
- Very low volume shrinkage
- Bonded parts short-time correctable

Technical data

Chemical base	Silane modified polymer
Mechanism of curing	1 comp. moisture curing
Shore A hardness, DIN 53505	45
Modulus elongation at 100%, DIN 53504 S2	ca. 2.9 N/mm ²
Elongation at break, DIN 53504 S2	ca. 100%
Tensile strength, DIN 53504 S2	ca. 3.6 N/mm ²
Consistency	self leveling
Tooling time	max. 10 min.
Density	1.30 ± 0.05 g/cm ³
Volume change, DIN EN ISO 10563	≤ 5%
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

Installation of sound absorbing elements, large area bonding, bonding of honeycomb panels, sandwich panel etc. Flexible bonding in the areas of metal, apparatus and machine construction, plastics technology, air-conditioning and ventilation systems, car body, wagon, vehicle and container construction. Thanks to fast cross-linking it is possible to bond parts in a continuous working process. The neutral polymerisation allows a connection without thermal or chemical pre-treatment of the assembly parts. Counterbalancing tolerances.

Substrate range

Highly suitable materials are ABS, PMMA, PC, PVC, fiberglass epoxide, fiberglass polyester, aluminium anodised, aluminium blank, zinc, steel V4A, PA 6.6, glass, automotive alloy 6016, textiles, tissue and carton. Due to the large variety of different plastics and compositions as well as materials which are susceptible to cracks, preliminary tests are recommended. Highly suitable materials are all types of parquet flooring, wood, cork, laminate, metals, various plastics, ceramics and concrete.

Technical data sheet Merbenit IA45

Substrate preparation

To achieve reproducible results the substrate has to be pre-treated according to the state of technology. For application the surface has to be clean, durable and free of dust, oil and grease. 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. 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

- Depending on the application the adhesive is applied in a thin layer on one or both sides of the substrate
- Apply the adhesive using a suitable spatula, brush, roller (ideally use a foam roller) or with a spray gun with adjustable air and fluid output
- The airing time of the adhesive varies depending on the material composition and application quantity. Usually between 5 - 10 minutes.
- Bonded parts are briefly correctable
- Non-cured adhesive can be removed with rubbing alcohol or isopropyl
- Cured adhesive can only be removed mechanically

Paint compatibility

Due to the diversity of varnishes and paints on the market we recommend preliminary tests. For burning process the material can be exposed, when fully cured, in short term to elevated temperatures. 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

- grey
- other colours on request

Packaging

- Sausages of 600 ml in boxes of 12 units
- Cans of 750 ml in carton of 10 units
- Tanks of 16 kg on palette of 30 units
- Hobbos of 20 liter on palet of 16 units

Shelf life and storage conditions

- 12 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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