Technical data sheet

Merbenit FB50 - INNOSOLV

Merbenit FB50 is an elastic SMP adhesive for parquet, wood and laminate flooring. Adheres on various substrates without adhesion promoter and is free of solvents.

Product advantages

- One component
- Free of solvents, isocyanates and silicones
- Good ridge
- Universal and safe in use
- Impurities can easily be removed again
- Water free, no swelling of the wood after laying
- Cures elastically, compensates the swelling and shrinking of the wood
- Impact sound reduction up to 14dB depending on parquet
- Reduces ambient noise value by over 50% compared to unglued parquet
- Ready to use, no mixing required
- Very low emission
- Shrinkage-free curing
- Dimensionally stable, no flowing on inclined surfaces
- No need to additionally weigh down the parquet after bonding
- Compensation of small height differences by repeated application possible
- Long processing time
- High bonding force, a primer is usually not required
- Suitable for floor heating systems

Technical data

Chemical base	Silane modified polymer
Mechanism of curing	1 comp. moisture curing
Shore A hardness, DIN 53505	30
Modulus elongation at 100%, DIN 53504 S2	ca. 0.8 N/mm²
Elongation at break, DIN 53504 S2	ca. 250%
Tensile strength, DIN 53504 S2	ca. 1.0 N/mm²
Consistency	good ridge, rationally trowelable
Tooling time	max. 60 min.
Curing rate after 24h	≥ 2.5 mm
Curing rate after 48h	≥ 3.5 mm
Density	1.62 ± 0.05 g/cm³
Volume change, DIN EN ISO 10563	≤ 2%
Temperature resistance after curing	- 40 °C to + 90 °C
Application temperature	+ 15 °C to + 25 °C Shall not exceed 75% relative humidity

All measurements were performed under normal conditions (23 °C and 50 % relative humidity).

The data are based on the results after 3 months.

Application

Suitable for flexible bonding of wood, precious wood, solid flooring, solid wood flooring, exotic parquet, laminate flooring, teak flooring based on PVC, aluminium and stainless steel, sheet metal, cork, linoleum flooring with textile back, bamboo flooring. Suitable for use on underfloor heating. Flexible large surface bonding and sealing in the areas of metal, apparatus and machine construction, plastics technology, air-conditioning and ventilation systems, car body, wagon, vehicle and container construction.

Substrate range

All coverings listed under application on: cement screed, anhydrite, liquid anhydrite, Terrazzo, Fermacell, particle board, concrete. On porous coatings direct bonding on tiles is possible. Suitable materials are metals, powder-coated, varnished, galvanised, anodised, chromed or hot zinc dipped surfaces, various plastics, ceramics, stone, 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.

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Substrate preparation
The substrate must be in accordance with the requirements of DIN 18356 ‚Working with parquet', hence plane, permanently dry, clean, free of cracks, tension and pressure resistant and professionally prepared for laying. Specific parquet requirements and preparations are to be found in the technical product information of the parquet manufacturer. 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. The compatibility with adjacent materials, coatings etc. must be determined in advance.

Adhesion promoter
For indoor applications without moisture exposure adhesion promoter is not required. At high media and moisture exposure, the use of an appropriate adhesive promoter is recommended. 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
- Apply with a serrated spatula evenly to the ground, insert the elements immediately into the adhesive bed and knock on carefully. Remove adhesive marks immediately, for example with floor wax. Please follow the instructions of the parquet or laminate manufacturer, in particular the processing conditions and the suitability of the adhered screeds.
- Mosaic and prefinished parquets (8 mm strong, shorter than 40 cm):
  Recommended trowel TKB-tooth shape B2
  Consumption: approx. 700 g/m²
- Solid parquet (max. dimensions 250 x 50 x 10 mm):
  Recommended trowel TKB-tooth shape B5
  Consumption: 800 - 1000 g/m²
- Strip parquet, short prefabricated element (up to 100 cm), industrial parquet and wood plaster RE (thinner 40 mm):
  Recommended trowel TKB-tooth shape B3 - B5
  Consumption 800 - 1000 g/m²
- Prefabricated parquet in plank shape (longer than 100 cm). Laminate coverings and solid wood flooring:
  Recommended trowel TKB-tooth shape B5 - B11
  Consumption: 800 - 1150 g/m²
- The serrations above are guidelines, a final selection of the teeth may be taken only on construction site, depending on the levelness of the underground, length of the parquet elements and back side. In any case it is important to sufficiently wet the back side of the parquet.
- Loadable after 24 to 48 hours
- 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
- Non-cured adhesive can be removed with rubbing alcohol or isopropyl
- Cured adhesive can only be removed mechanically

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
- Tanks of 16 kg on palet of 33 units
- Barrels of 180 liter on palet of 2 units

Work and environmental safety
Important information about work and environmental safety is available on the material safety data sheet.

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