

DESCRIPTION

Variobond Flex is a thixotropic, two component bonding paste based on solvent free epoxy resins and polyamine adduct hardeners with lasting flexibility.

PRINCIPAL CHARACTERISTICS

- Suitable as adhesive for bonding various materials such as wood, steel, aluminium, plastics and their combinations;
- Also suitable as multi-purpose filler for steel, wood, GRP, etc.;
- Due to a permanent flexibility high adhesive strength;
- Recommend for fillet-joints;
- Excellent water resistance;
- Easy mixing as both components are thixotropic;
- Suitable for interior and exterior use and applications
- Suitable for woodcore epoxy constructions;
- Remains flexible reducing the risk of cracking and tearing.

COLOURS AND GLOSS

Opaque - Gloss

BASIS PROPERTIES (AT 23 °C AND 50% R.H.)

Density	:	approx. 1,4 g/cm ³ (mixed product)
Solid content	:	approx. 100 % (volume)
Recommended d.f.t.	:	depending on application
Dust dry after	:	approx. 24 hours
Full cure after	:	approx. 2 days, see additional information
Recoating interval	:	min. 24 hours, see additional information max. unlimited
Shelf life	:	separate components, stored cool and dry in original packaging, minimum 12 months
Flash point (DIN53213)	:	base component 150 °C hardener 112 °C

SPREADING RATE

Depending on application : approx. 1,0 - 3,0 m²/kg, see additional information
The practical spreading rate depends on a number of variables, such as: shape and size of object to be painted, the condition and profile of the substrate, the method of application, climatologic conditions and skill of labour.

SUBSTRATE CONDITION AND TEMPERATURE

Wood	:	clean and dry, free from any contamination and loose particles, moisture content maximum 12%, pre-treated with Variopox Injection resin and/or Variopox Impregnating resin and sanded with grit paper P120;
Metals	:	clean and dry, free from oil, grease, contamination and loose particles, pre-treated with IJmopox ZF primer and sanded with grit paper P120;
Concrete	:	clean and dry, free from any contamination and loose particles, moisture content maximum 4%, pre-treated with Variopox Injection resin;
Polyester	:	clean and dry, free from contamination and loose particles, exposed glass fibres pre-treated with Variopox Injection resin and sanded with grit paper P120;
Other surfaces	:	clean and dry, in good condition, free from any contamination and loose particles, sanded with grit paper P120;

During application and curing a minimum temperature of 10 °C is allowed. The temperature of the substrate should be minimum 3 °C above dew point.

INSTRUCTIONS FOR USE

Before use, mix base and hardener components thoroughly.

Mixing ratio : 50,0 base : 50,0 hardener (by weight)
50,0 base : 50,0 hardener (by volume)

Do not prepare more material than can be applied within the pot life of the mixture.

Induction time : none at 20 °C
Pot life : 20 minutes at 30 °C
40 minutes at 20 °C
50 minutes at 15 °C

Application with:

	Puttyknife, comb
Type thinner	n.a.
% of thinner	
Nozzle orifice	n.a.
Nozzle pressure	n.a.
Cleaning	Double Coat Brush thinner, Double Coat Degreaser

Do not add any solvent to Variobond.

ADDITIONAL INFORMATION

- Curing of Variobond Flex:

	10 °C	20 °C	30 °C
Minimum, with IJmopox or Variopox, after sanding with P120	48 hours	24 hours	24 hours
Minimum, with Double Coat, after sanding with P180	3 days	2 days	2 days
Maximum, with epoxy or Double Coat, after sanding	unlimited	unlimited	unlimited
Fully cured after	4 days	2 days	2 days

- Pot life
Do not continue application when the pot life is about to end. As the reaction between base and hardener has progressed, a poor adhesion will be the result.
- Application of Variobond Flex at lower temperatures
Curing at temperatures lower than 10 °C will result in a sticky layer on top of the cured resin. This will negatively affect adhesion of following coating.

- Mechanical properties

Property	Value	Unit	Test method
• Tensile strength	11	MPa	ISO 527-3
• Elongation at break	25	%	ISO 527-3
• HDT	33	°C	ISO 75-2
• Flexural strength	7	MPa	ISO 178
• Modulus of elasticity	1899	MPa	ISO 178

- Joints (fillet)

A fillet joint is a simple connection suitable for plywood. The fillet is made with a round spatula or old tablespoon. The most suitable radius (r) for the joint is 2 to 5 times the thickness of the plywood (d), see figure 1.

The amount of Variobond Flex for the fillet can be calculated with the formula: quantity (gram) = $0,3 \times (\text{radius (r) in mm})^2 \times \text{length (m)}$

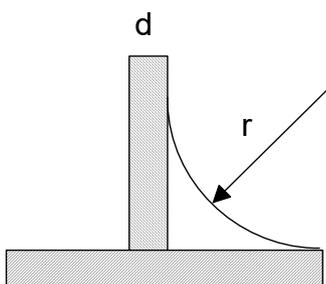


Figure 1 Fillet

- Repair of damaged areas, wood rot

Identify the weak and damaged areas by pressing a screwdriver against the surface. Remove all dirt, loose particles and poor adhering paint by means of scraping. Remove rotten parts by chiselling up to a sound and clean surface. Remove dust and leave surface to dry. Apply one coat Variopox Injection resin and allow to cure for 24 hours. When a large area have to be repaired, make a support from plywood and plastic. Apply Variobond Flex with a putty knife and press the material in all cavities and pores. Model and smoothen the layer of Variobond Flex as good as possible. 24 hours after application and after sanding Variobond Flex may be recoated with a suitable paint system.

SAFETY INFORMATION

See the corresponding Material Safety Data Sheet for detailed instructions on safety, disposal and health.

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Disclaimer

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