

Kimitech VR

Family of fiberglass fabrics of different weight and texture specific for structural interventions



Scheda Tecnica rev.01_05/2025

DESCRIPTION

Kimitech VR is a family of fiberglass weave fabrics of various weight and texture, specific for structural interventions.

USES

Kimitech VR fabrics are used to consolidate elements in reinforced concrete, wood and masonry and reinforcements in reed vaults.

WORKS

Reinforcement by bonding and impregnation of glass fiber fabrics (SA62)

APPLICATION

For the various types of intervention, read the specifications and the technical data sheets of the materials to be used.

Once the surface subject to intervention has been prepared and possibly primed with Kimicover FIX (optional use), spread the two-component epoxy resin Kimitech EP-IN/CMP.

On fresh, lay the fabric and, with a special metal roller, exert a slight pressure on it; this operation will favour the uniform adhesion of the fabric and avoid dangerous air bubble formation.

On fresh, apply Kimitech EP-IN/CMP epoxy primer to the fabric by brush.

STORAGE

Fabrics fear humidity. Store in a dry place protected from light.

PRODUCT	G/MQ	WEAVING	TF** [MM]	SYSTEM CLASS E (GPa) – FK (MPa)	BF [MM]
Kimitech VR 300	300	Unidirectional	0,114	60G (60 GPa - 1300 MPa)	200; 500
Kimitech LP 300	300	Biaxial balanced	0,058	60G (60 GPa - 1300 MPa)	1270
Kimitech VR 900	900	Unidirectional	0,342	60G (60 GPa - 1300 MPa)	200; 500.

WARNING

Product for professional use.

The product is an item according to the definitions of Regulation (EC) n. 1907/2006 and therefore does not require a Safety Data Sheet.

The marking obligations are not related to the intrinsic nature of a given product, but to the use to which a specific material is intended: before making the order in Kimia, the buyer shall submit all the documentation available to the works supervision in order to determine the materials suitability (in terms of certifications and performance) in relation to the use for which they are intended.

The information and requirements indicated in this Technical Data Sheet are based on our current knowledge and experience and are to be considered, in any case, purely indicative. They cannot guarantee the final result of the applied product and they have to be confirmed by exhaustive practical applications; therefore the user must test the suitability of the product for the intended application and its purpose. Users must always refer to the latest version of the local technical data sheet related to the product.

CHARACTERISTICS	TYPICAL VALUE
Color	Bianco
Density ρ_{fib} [g/cm ³]	2,6
Tensile elastic modulus e_{fib} [gpa]	71
Tensione di rottura a trazione del filato f_{fib} [mpa]	2900
Allungamento a rottura ϵ_{fib} [%]	4,5

TECHNICAL SPECIFICATIONS

SK62 - Reinforcement by bonding and impregnation of glass fiber fabrics

Propping of the structures subject to the intervention. Cleaning of the substrate with total elimination of inconsistent parts and of any material that could affect the good adhesion of the following processes. Rounding of any edges (minimum radius 2 cm). Accurate grouting of any cracks or micro-cracks to be carried out with suitable mortars. If the surface of the reinforcement application is very uneven, it will be regularized with suitable hydraulic mortars.

As a primer (optional) the Kimicover FIX resin by Kimia S.p.A. will be used or similar product with a minimum consumption of:

0.2 Kg/m² (in case of concrete or wood supports)

0.3 Kg/m² (in case of masonry supports)

0.5 Kg/m² (in case of cane and plaster supports)

The two-component epoxy adhesive will be Kimitech EP-IN/CMP resin by Kimia S.p.A. or similar product. Minimum consumption of 1.6 Kg/m²

The fiberglass reinforcement fabric will be Kimitech VR XX (insert the commercial name of the chosen fabric) by Kimia S.p.A. or similar product.

The two-component resin used for the impregnation will be Kimitech CMP by Kimia S.p.A. or similar product. Consumption will be around 0.8 kg/m².

The fiberglass reinforcement must have the following characteristics:

- Tensile breaking strength of the composite: 1300 MPa;
- Tensile modulus of elasticity: 60 GPa;
- Tensile elongation: 2.16%;
- Texture: XXX;
- Total weight of the belt: XXX g/m²;
- Belt thickness (only glass): XXX mm;