

WF-ER330

Impregnating epoxy resin

DESCRIPTION

Wolfix WF-ER330 is a high performance, solvent free, two-component, high-strength, high-modulus, epoxy resin adhesive used to saturate Wolfix fabrics and prime substrates

USES

WF-ER330 is used for the effective impregnating bonding to many substrates such as concrete, steel, ceramic, stone, wood and many fiber fabrics, like Wolfix carbon fabric, Wolfix glass fabric, Wolfix aramid fabric. It is mainly used for the strengthening and reinforcement of structural systems.

GENERAL FEATURES

- Good wettability
- Good stability
- High bonding strength
- Easy to mix
- Fully compatible and developed specifically for Wolfix fabrics.
- Solvent free, VOC compliant
- Resistant against bases, diluted acids, saline solutions, mineral oils and aliphatic hydrocarbons

PRODUCT INFORMATION

✦ **Appearance:**

Component A – Transparent white liquid

Component B – Transparent brown hardener

✦ **Packing size:**

Component A – 20kg

Component B – 10kg

✦ **Density:**

Component A – 1.17g/cm³

Component B – 1.09g/cm³

Mixed – approx. 1.16g/cm³

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✦ Storage conditions:	Store dry at 10°C-30°
✦ Shelf life	18 months
✦ Mix Ratio(by weight):	Component A: Component B=2:1
✦ Operable time:	60mins
✦ Initial curing:	1~2hours
✦ Full curing:	72 hours
✦ Maintain:	7 days

TECHNICAL INFORMATION

✦ Compressive strength	
▪ 3 days at 25-32°C	74MPa
▪ 7 days at 25-32°C	86MPa
✦ Flexural strength	
▪ 7 days at 25-32°C	61MPa
✦ Flexural E-modulus	
▪ 7 days at 25-32°C	3500MPa
✦ Tensile strength	
▪ 7 days at 25-32°C	46MPa
✦ Elongation at break	
▪ 7 days at 25-32°C	1.5%
✦ Bonding strength for steel with concrete	
▪ 7 days at 25-32°C	≥2.5MPa Failure at concrete cohesion
✦ Heat deflection temperature	
▪ 7 days at 25-32°C	65°C

CONSUMPTION RATE

Product name	WF ER210 (primer)	WF ER330 (impregnated)
WFC-200	0.2-0.3kg/m ²	0.5-0.8kg/m ²
WFC-300	0.2-0.3kg/m ²	0.7-0.9kg/m ²
WFC-600	0.2-0.3kg/m ²	1-1.2kg/m ²

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APPLICATION INSTRUCTIONS

✦ Substrate preparation

WF-ER330 should be applied by well-trained and experienced workers. The WF-ER330 is delivered in the prescribed mixing ratios. Before mixing the component A and component B, please note don't mix too much one time, the volume need accord to the operation time. Mixing of both components is preferably done by means of a low speed drill equipped with a mixing paddle. Mix thoroughly and carefully. Scrape the sides and bottom of the container while mixing to ensure that the hardener is evenly distributed vertically as well. After blending, the mix must be homogeneous, i.e. without streaks. The temperature of both components at the moment of mixing should ideally be 15–20°C. Higher temperatures reduce the application time considerably.

✦ Application tools



Stirrer: used for mixing the epoxy resin part A and part B



Roller: used for pasting the epoxy resin to the surface of substrate and carbon fiber sheet



Thread roller: used for eliminating the bubbles of epoxy resin after pasting on the carbon fiber sheet

NOTICE

- Minimum age of concrete is 21–28 days, depending on curing and drying conditions.
- All repairs required to achieve a level surface must be performed prior to application.
- Do not apply or cure WF-ER330 in direct sunlight. Minimum substrate temperature 4 °C. Maximum application temperature 35 °C
- Do not thin with solvents.

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- Material is a vapor barrier after cure. Do not encapsulate saturated concrete in areas of freezing and thawing.
- Color of WF-ER330 may alter due to variations in lighting and/or UV exposure.
- Due to its mixed viscosity, do not use WF-ER330 with an automatic saturating device. Fabric must be saturated/impregnated manually when the wet lay-up process is used.
- At low temperatures and/or high relative humidity, a slight oily residue (blush) may form on the surface of the cured epoxy. If an additional layer of fabric, or a coating is to be applied onto the cured epoxy. This residue must first be removed to ensure adequate

ENVIRONMENT, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products.

POINTS FOR ATTENTION

- Mix proper amount of adhesive at one time, use up within the applicable period, do not use the adhesive if it is beyond the applicable period;
- If components A and B of the adhesive are not used up, they should be covered and sealed. They should not be exposed to air for a long time;
- The construction workers should take all necessary safety measures (such as wearing masks, gloves, goggles, etc.), and maintain fire prevention measures as well as keeping the site clean;

If the adhesive accidentally got in touch the skin and cloths, acetone can be used to wipe it at once, followed by a great deal of clear water;

If accidentally swallowed or splashed into the eyes, please seek immediate medical service.