

PADRAPAT PARS

Products for FRP



PADRA-Poxive TEG-411

Thixotropic epoxy gel for adhering and saturating fabrics by dry lay-up method

DESCRIPTION

PADRA-Poxive TEG-411 is a 2-component, thixotropic, solvent free, epoxy adhesive, used for adhering and saturating normal-weight fabrics in FRP applications. It is formulated for *dry lay up* process.

WHERE TO USE

PADRA-Poxive TEG-411 is a high modulus, high strength, and thixotropic impregnating epoxy resin which provide excellent bonding to many construction materials.

- It can be used for *dry lay-up* FRP fabric installation.
- It can be used for rebar installation

ADVANTAGES

PADRA-Poxive TEG-411 is a thixotropic and gel consistency adhesive which has following advantages:

- Excellent adhesion to concrete and most construction materials
- Excellent early and final mechanical strengths
- Excellent chemical resistance
- Impact and shock resistance
- High strength and high modulus adhesive
- High creep resistance under permanent load
- Good wetting properties and excellent saturating woven and unwoven normal weight fibers
- Gel consistency
- Easy to mix
- Low odour and easy to use
- Shrinkage free curing
- Long pot life and open time
- Thixotropic and suitable for vertical and overhead applications
- Easy application by trowel and impregnation roller
- Non sagging
- Color coded components to ensure proper mixing control

TECHNICAL INFORMATION

Color	Concrete gray (mixed) Comp. "A": white Comp. "B" : Black
Mixing ratio	A : B = 4.0 : 1.0 by weight
Density (at 25 °C)	1.350 kg/l (mixed)
Tack free	3.0 hours (at 25°C)
Appearance	Pasty, does not flow
Bonding strength	> 4.5 MPa (Concrete failed)
Tensile strength (ASTM D638)	30 MPa
Elongation at break (ASTM D638)	3.6%
Service temperature	-35 to +65 °C
Full cured	After 7 days (at 25 °C)
Working Time / Pot life	30 min. (25 °C)

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HOW TO USE

Surface preparation	<p>Substrate must be clean, sound, and free of surface moisture. Remove dust, laitance, oil and grease, loose particles, coatings, and curing compounds by sandblasting, grinding, or power wire brushing.</p> <p>The surface defects, honeycombs, and spalls must be repaired with suitable repair mortars such as PADRA-Patch, PADRA-Poxy, or PADRA-Epoxy mortars, a mixture of PADRA-Poxive SEP-415 and quartz sand, or any other mortars recommended by designer. The surfaces should be dry and level before application of pasty adhesive.</p> <p>It is recommended the surface bobbles be repaired by an epoxy putty to reduce adhesive consumption.</p>
Mixing	<p>Mix each component separately. Add component "B" to Component "A" and mix thoroughly using a low speed drill (max. 300 rpm) and suitable paddle for at least 3 minutes, or until all striations have disappeared and a uniform color is obtained.</p>
Application method	<ol style="list-style-type: none"> 1. Cut fiber sheets into desired size. 2. Apply the mixed PADRA-Poxive TEG-411 to the prepared substrate using a trowel or brush. 3. Place the prepared fabric onto the resin coating in the required direction. Carefully work the fabric into the resin with plastic roller until the resin is squeezed out between the roving of the fabric. The surface has to be smoothed until it appears homogeneous. 4. If more than one layer of fabric is required, this must be done within 45 minutes (at 25°C) after the application of previous layer. If this is not possible, a waiting time of at least 12 hours must be observed before the next layer is applied. 5. Apply a final layer of PADRA-Poxive TEG-411 onto the exposed surface at a rate of 0.3 kg/m², as a covering layer. <p>Note: For rebar installation, it would be recommended that diameter of hole be 4 to 6 mm greater than diameter of rebar with hole's depth not smaller than 12 times of rebar's diameter.</p>
Priming	<p>For dry and sound concrete surfaces, there is no need primer. When the surface is porous, it is recommended use one coat of PADRA-Poxive VLE-410 as sealer. For very porous or weak surface, it is recommended apply at least two coats of PADRA-Poxive VLE-410 on substrate before preparation to stable substrate.</p> <p>For wet surfaces, with no standing water, it is recommended use PADRA-Guard EPW-712 as primer.</p>
Material consumption	<p>400 to 650 g/m², depending on fiber sheet.</p>
Application limits	<p>Do not apply PADRA-Poxive TEG-411 at temperatures below 5 °C.</p> <p>Do not thin PADRA-Poxive TEG-411 by solvent. Solvent will prevent proper cure.</p> <p>Minimum age of concrete must be 21~28 days, depending upon curing and drying conditions.</p>
Cleaning	<p>Uncured material can be removed with approved solvent. Cured material can only be removed mechanically.</p>

Storage / Shelf life

Store out of direct sunlight, and protected from extreme heat and rain fall. The shelf life for originally unopened package is 12 months from date of production.

Packaging

PADRA-Poxive TEG-411 is available in 4 and 10 kg pails.



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Safety precautions

Product may cause skin irritation. Wear gloves and goggles. In contact with eyes or mucous membrane, flush immediately with plenty of warm water and seek medical attention without delay.

Uncured products should be prevented from entering local drainage system and water sources. Spillage must be collected using absorbent materials such as sawdust and sand. Dispose of in accordance with local regulations.

