

ERA™420

Epoxy Resin Adhesive

PRODUCT DESCRIPTION

ERA™420 is a two-component, high viscosity non-corrosive epoxy resin and polyamine hardener, highly moisture-tolerant structural adhesive for structural jointing and structural strengthening. ERA™420 can be also used in FRP laminates. These plates are bonded to the concrete surface elements with ERA™420 epoxy adhesives for the repair, flexural strengthening, and upgrade of beams and slabs.

PRODUCT FEATURES

- Excellent durability and flexibility
- Excellent cohesive bond to prepared surfaces
- Good adhesion to concrete, steel, timber, glass, rubber and carbon fibre
- Non-shrinking
- Moisture tolerant for all year round work
- Able to operate in temperatures from 5°C to 45°C

PRODUCT USES

- Bonding and reinforcement of concrete elements, natural stone, mortar and brick.
- Bonding FRP laminates to the concrete surface elements.
- Jointing of precast segmental bridge units.
- Bonding rubber bearing pads for highways and railways.

HOW TO USE

SURFACE PREPARATION

Surfaces should be solvent-wiped, free of heavy deposits of grease, oil, dirt or other contaminants. Remove any weak surface laitance or deleterious, friable material by grinding or grit blasting. Pull-off tests should be carried out prior to application of the adhesive.

MIXING:

Add the hardener to the resin and mix for 3 to 5 minutes with a low speed drill. Mix until a uniform consistency and colour is obtained. In cold weather, it is advisable to store the product unopened in a warm environment for several hours before mixing.

APPLICATION:

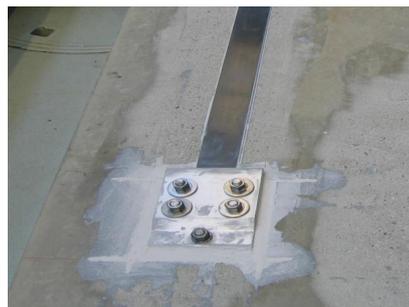
Apply the ERA™420 adhesive to the prepared substrate with a grooved trowel or by gloved hands. In some cases, only one face needs to be coated with adhesive, provided that at least 3 mm thickness is applied (To obtain good bonding, it is recommended to spread the adhesive on both surfaces).

For bonding FRP laminates, apply thin prime coat of the ERA™420 epoxy adhesive to the surface approximately 1.5 mm thick and 15 mm wider than the plate to be used. ERA™420 is applied to both the carbon and substrate surfaces.

In any case of plate bonding, squeeze the ERA™420 adhesive from both sides of the plate edge using a hard rubber roller and ensure no air voids.

HANDLING

Approved personal protection equipment should be worn at all times. Particle mask is recommended for possible airborne particles. Gloves are recommended when handling mortar to avoid skin irritation. Safety glasses are recommended to prevent eye irritation. Wear chemical resistant clothing/gloves/goggles.



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Ventilate area. In absence of adequate ventilation, use properly fitted respirator.

TECHNICAL DATA

Density	1535 kg/m ³	
Cure temperature	+5°C to 30°C	
Moisture resistance	0.5% water absorption at 1.1 mm	
	0.3% water absorption at 1.6 mm	
Workable life	30 minutes at 20°C	
Compressive strength	10°C 24 hrs	32 N/mm ²
	10°C 7 days	75 N/mm ²
	20°C 24 hrs	70 N/mm ²
	20°C 7 days	85 N/mm ²
Flexural strength	35 N/mm ²	
Tensile strength	17 N/mm ²	
Flexural modulus Em	9.8 kN/mm ²	

STORAGE

Store in dry, shaded conditions away from sources of heat and ignition. Store at between 5°C and 25°C. In these conditions shelf life is at least 12 months.

FIRST AID

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water; contact physician immediately. For respiratory problems, remove to fresh air. Wash clothing before reuse.

DISCLAIMER OF LIABILITY

AFZIR, LLC warrants its products to be free from manufacturing defects. Buyer determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to replacement of product. Any claim for breach of this warranty must be brought within six months of the date of purchase.

AFZIR shall not be liable for any consequential or special damages of any kind, resulting from any claim or breach of warranty, breach of contract, negligence or any legal theory.

The Buyer, by accepting the products described herein, agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production.