ERS™200

Epoxy Resin Saturant

AFZIR
Advanced Solutions
Strengthening Company

www.afzir.com - Retrofitting Products

PRODUCT DESCRIPTION

ERS™200 is a two-part, epoxy adhesive for high strength composite bonding and saturating of fibers applications. ERS™200 matrix material is combined with various fibers such as carbon and glass fibers to provide a wet-lay-up, composite strengthening structural members and protective coating. It is formulated to provide high elongation to optimize properties of the composite systems. It provides a good working time for application, with no offensive odor.

ERS™200 may be thickened with fumed silica or (aerosol) talc and calcium carbonate powder to produce epoxy putty. In addition, ERS™200 can be used as a primer or finish coat depending upon the project requirements.

TECHNICAL DATA & PHYSICAL PROPERTIES	
Chemical Base	Epoxy resin
Density	1.1 Kg/L
Mixing Ratio	100:13
Part A	100
Part B	13
Appearance	Clear Light Yellow Liquid
Part A	Clear Light Yellow Liquid
Part B	Clear
Viscosity@21°C - Part A	7000-10000 Mpas
Epoxy Equivalent- Part A (ASTM D1652)	185-192 g/eq
Epoxy Value- Part A (ASTM D1652)	0,51-0.54 mol/100g
Hydrolysable Chlorine Part A (ASTM 1726)	Max 0.1 wt%
Nonvolatile - Part A (DIN ENTSO 3251)	Min 99 wt%
Tg (ASTM D4065)	65°C
Application Methods	Hand lay-up Spray machine Robot processes
Shelf Time	18 month
Storage Conditions	Store dry at 4°C – 40°C

Curing schedule 72 hours post cure @ 60°C
Testing temperature: 21°C

PRODUCT FEATURES

- Excellent adhesion to concrete, masonry, metals, wood and most structural materials
- Easy mix and application by trowel and impregnation roller
- Good high / low temperature properties
- Good elongation
- Good Mechanical Properties
- Manufactured for manual saturation methods
- No separate primer required
- High abrasion and shock resistance.
- 100% solvent free

PRODUCT USES

ERS™200 is a multi-use epoxy resin, it performs as a primer, tack coat/putty and saturate for the carbon, glass and aramid fiber systems.

Epoxy Resin Saturant - ERS™200

For detailed uses see installation guides for strengthening systems. Fume silica (aerosol) or talc and calcium carbonate powder may be added to thicken the resin for proper performance.

HOW TO USE

SURFACE PREPARATION

ERS™200 should be applied to substrates that are free of protrusions, dry, exhibit an open pore structure and are free of dust, oils or other surface contaminates or bond inhibiting materials.

BASIC APPLICATION EQUIPMENT

Application processes for ERS™200 will require mixing drill, mixing paddle, nap rollers, steel rollers, paint brushes, trowels and saturator machine (if available).

MIXING

Premix Part A for 1-2 minute. Add the full contents of Part B pail to the full contents of Part A pail, or use equal fractions of each pail. Blend Part A and Part B with a mechanical mixer for 1-2 minutes until uniformly blended.

APPLICATION

- Hand lay-up
- Spray machine
- Robot processes

APPROXIMATE POT LIFE

Approximate pot life for ERS™200 is 20-30 minute at 21°C in thickness 60 mm.

COVERAGE RATES

AS A PRIMER

Concrete: 6.1 m²/L
Masonry: (Concrete) 3.0 m²/L
Steel: 8.0 m²/L

AS SATURANT

PGW™600 1.25 m²/L
UCW™300 1.40 m²/L
GCM™300 1.40 m²/L
Coverage rates may vary based on installation procedure and fabric type. Contact our Company for coverage rates.

LIMITATIONS

www.afzir.com info@afzir.com

Only apply ERS™200 when the ambient temperature is between 4°C to 40°C. Topcoat selection should be based upon requirements for protection from environmental exposures, aesthetics, and fire protection/burn characteristics.

OBSERVE WORKING TIME LIMITATIONS

Mix no more material than can be applied within the work time period. Available work time, temperature and complexity of the application will determine how much material should be mixed at one time. Keep material cool and in shaded area, away from direct sunlight in warm weather. During hot weather, work time can be extended by keeping the material cool before and after mixing or by immersing the pot in ice water.

CLEAN UP

Use methyl ethyl ketone or acetone. Observe fire and health precautions when using solvents. Dispose of in accordance with local regulations.

SHELF LIFE

Stored at 21°C: 30 months (Parts A and B)

HANDLING:

Use of approved personal protection equipment should be worn at all times. Particles mask is recommended when handling airborne particles. Gloves are recommended when handling fabrics and resins to avoid skin irritation. Safety glasses are recommended to prevent eye irritation. Wear chemical resistant clothing /gloves/goggles. Ventilate area. In absence of adequate ventilation, use properly fitted NIOSH respirator.

These products are for professional and industrial use only and are on installed by trained and qualified applicators. Trained applicators must follow installation instructions.

SAFETY

WARNING: Vapor may be harmful. Contains epoxy adhesive and curing agent. May cause skin sensitivity or other allergic responses. Keep away from heat, sparks or open flame. In enclosed areas or where ventilation is poor use an approved air mask and utilize adequate safety precautions to prevent fire or explosion.

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.

.

www.afzir.com - Retrofitting Products

www.afzir.com info@afzir.com