Corrosion Engineering
A Division of ErgonArmor

PRODUCT INFORMATION

CE-284
11/13 Supersedes 01/99

ACROCAST™ VINYL ESTER CONCRETE

DESCRIPTION

ACROCAST Vinyl Ester Concrete is a three (3) component, silica filled, vinyl ester based polymer concrete. It is formulated to be applied by the casting method of placement. ACROCAST Vinyl Ester Concrete may be cast into formwork or placed as a monolithic topping as a flooring overlayment. Supplied as a resin, hardener, and filler, these components are mixed together and placed using conventional mixing equipment and placing techniques. This polymer concrete possesses excellent physical properties and outstanding chemical resistance. **For complete installation instructions, consult Corrosion Engineering installation specification CES-360**.

AREAS OF USE

ACROCAST Vinyl Ester Concrete possesses excellent chemical resistance to oxidizing bleach solutions, chlorine dioxide, mineral and organic acids, alkaline solutions, and many organic solvents. ACROCAST Vinyl Ester Concrete may be used in fabricating pre-cast chemical sumps and trenching, casting pump bases, piers and curbs, and for renovating deteriorated Portland cement based concrete floors.

ACROCAST Vinyl Ester Concrete should not be used where exposure to hydrofluoric acid or fluorides will be encountered.

OUTSTANDING FEATURES

- High compressive strength
- Low absorption
- Broad chemical resistance
- Low shrinkage
- Excellent tensile strength
- Rapid curing for quick turnaround requirements

TYPICAL PHYSICAL PROPERTIES

PROPERTY	ACROCAST™ VINYL ESTER CONCRETE
Color	Gray
Working time @ 70°F	45 minutes
Wet density (ASTM C18)	133 pcf (2.1 gm cm^3)
Compressive strength (ASTM C579), 7 Days	>13,500 psi (93 MPa)
Tensile strength (ASTM C307), 7 Days	>2,250 psi (15.5 MPa)
Flexural strength (ASTM C580)	>3,500 psi (24 MPa)
Modulus of elasticity (ASTM C580)	1.84 x 10^6 psi
Water absorption (ASTM C413)	0.4 %
Linear shrinkage (ASTM C531)	0.33 %
Mix Ratio - Resin: Hardener: Filler (By Weight)	1.0:0.017:8.8
Standard slump (ASTM C143)	3 inches (75 mm)
Bond strength to concrete	Greater than tensile strength of concrete
Bond to #4 pultruded vinyl ester rebar (ASTM C234)	750-990 psi (12.0-15.8 gm cm^3)
Service Temperature	225°F (107°C) depending upon chemical environment

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

PRODUCT	CODE	PACKAGING	YIELD
ACROCAST VE Concrete Resin ACROCAST VE Concrete Resin	19510 19511	43 lb (5 gal) pail 446 lb (55 gal) drum	A 419 lb (3.15 cu ft) unit consists of 1 x 43 lb pail resin, 1 x 0,7 pt bottle of hardener, and 5 x 75 lb bags filler A 4354 lb unit (32.7 cu ft) unit consists of 1 x 446 lb drum resin, 1 x 8.3 lb bottle hardener, and 52 x 75 lb bags of filler
CHP Hardener CHP Hardener	19552 21922	0.75 lb (0.7 pt.) btl 8.3 lb (1 gal) can	
Polymer Concrete Filler	19670	75 lb bag	

SAFETY PRECAUTIONS / DISCLAIMER

Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and material safety data sheets before using. While all statements, technical information, and recommendations contained herein are based on information our company believes to be reliable, nothing contained herein shall constitute any warranty, express or implied, with respect to the products and/or services described herein and any such warranties are expressly disclaimed. We recommend that the prospective purchaser or user independently determine the suitability of our product(s) for their intended use. No statement, information or recommendation with respect to our products, whether contained herein or otherwise communicated, shall be legally binding upon us unless expressly set forth in a written agreement between us and the purchaser/user.

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