



# The FRP Retrofit Experts

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## Product Data Sheet QuakeBond™ 401-HCR Epoxy Novolac Coating

### DESCRIPTION

QuakeBond™ 401-HCR is a high quality epoxy novolac coating system with chemical, high temperature, and abrasion resistance superior to Bis-A type epoxy resins. This tightly crosslinked system cures in the presence of moisture and humidity with excellent mechanical properties. It contains no solvents (100% solids, zero VOC) or carcinogens and has minimal odor and toxicity that assures ease of application. 401-HCR's viscosity is well suited for vertical applications. 401-HCR is typically stocked in gray and ships DOT non-corrosive.

### SUGGESTED USES:

- ◆ Tank Linings
- ◆ Chemical Resistant Coatings

### TECHNICAL DATA:

Solids by Volume	100%
Volatile Organic Content (VOC)	0 lbs./gal
Mixing Ratio	2:1 by volume
Viscosity	Medium
Pot Life Min @ 77°F	25-30
Application Temperature	55°F minimum, 100°F max
Maximum Re-coat Time @ 77°F	24 hours
Dry To Touch @ 77°F	8 hours
Light Traffic @ 77°F	14-16 hours
Full Cure @ 77°F	7 Days

Complies with ACI Standard 503.1 - 4 and ASTM C-881-90 Type I, II, IV, V, VI and VII. Grade 2, Class B, C, D, E and F. Cures in presence of moisture and humidity. Resin non-crystallizing.

**HOW SUPPLIED:** 3, 15, and 165-Gallon Kits

### PHYSICAL PROPERTIES OF CURED SYSTEM (cured 7 days at 77° F):

Compressive Strength (psi) ASTM D695	12,000 - 14,000
Flexural Strength (psi) ASTM D790	13,000 - 13,800
Tensile Strength (psi) ASTM D638	7,000- 8,000
Tensile Elongation (%) ASTM D638	3.2
HDT (F) ASTM D648-264	165F
Bond Strength (psi) to concrete	>400, w/ 100% concrete failure
Water Absorption (% gain) 24 hrs	< 1
Shore D Hardness	86

### DIRECTIONS FOR USE:

Follow general surface preparation and application procedures specified in ACI 503. 1-4.

### CONDITIONS TO AVOID:

- Do not apply to concrete less than 30 days old.
- Do not apply to concrete with curing or sealing membranes.
- Do not apply to substrates at a temperature less than 50°F.

### SURFACE PREPARATION:

Substrate surfaces must be structurally sound and free from contaminants such as dust, oil or dirt. Surfaces must be shot blasted or mechanically abraded to achieve a minimum 5-mil profile. Coated surfaces must be mechanically cleaned and abraded with 60-80-mesh. A calcium chloride "dome" test is recommended and hydrostatic pressure must be <5 psi before epoxy coating application. Free-standing water must be removed. Do not apply over old epoxies or other previously applied coatings.

### MIXING:

Thorough and complete mixing is critical, a Jiffy mixer is recommended. First mix each component separately. Proportion each component at the ratio of 2 parts A (resin) to 1 part B (hardener) by volume or, if using 1-gallon kits, pour all of Part B (hardener) into Part A (resin) and mix at 400-600 RPM for 3-5 minutes. Use an up and down motion, scraping the mixing container sides and bottom. Mix no more material than may be applied in 20 minutes.

### TANK LININGS AND CHEMICAL RESISTANT COATINGS:

401-HCR is designed as a fuel tank coating. The system is also ideal for chemical tanks, chemical disposal pits or tunnels, or most any application where increased resistance to acids, bases and solvents is desired. Apply mixed product by brush or roller at the rate of 15-20 mils (approx. 80-100 sq ft per gallon). Once the first coat has tacked, but not fully cured, an additional 15-20 mil coating may be applied. Allow the material to cure 48 hours minimum before exposure to any chemicals (product will continue to cure for 7 days to full properties).

### 401-HCR CHEMICAL RESISTANCE GUIDE (3 WEEK IMMERSION)

Reagent	% Weight Gain (loss)
Xylene	0.0
Toluene	2.3
1,1,1 Trichloroethane	0.0
MEK	2.3
EB (Ethylene Glycol Monobutyl Ether)	2.4
Ethyl Alcohol	6.9
Water (deionized)	1.2
5% Detergent Solution	0.0
10% Sodium Hydroxide	0.0
50% Sodium Hydroxide	(0.2)
10% Sulfuric Acid	0.0
70% Sulfuric Acid	0.2
10% Hydrochloric Acid	0.1
5% Acetic Acid	2.6
10% Acetic Acid	5.4
Skydrol	(0.03)
Synthetic Gasohol	0.0
Mogas, Diesel	0.0
JP-4, JP-5, JP-7, JP-8	0.0
Diethylene Glycol Monomethyl Ether	0.0

KEEP OUT OF REACH OF CHILDREN. FOR INDUSTRIAL USE ONLY. NOT FOR INTERNAL CONSUMPTION. KEEP CONTAINER CLOSED TIGHTLY.  
CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION.

QuakeWrap, Inc. warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current technical data sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. QUAKEWRAP, INC. SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES.