KELMAR® FWC

Epoxy Wear Course

Description

KELMAR® FWC (Flexible Wear course) is a high solids epoxy that is frequently used as a wear course in the KELMAR® FWC system of waterproofing and parking deck protection. Originally developed as a concrete adhesive, it also has many other uses and requires no primer. KELMAR® FWC is odor free, making it suitable for both indoor and outdoor use. KELMAR® FWC can also be used for protecting slab-on-grade and split-slab concrete structures from moisture intrusion while providing a vapor permeable protective wear surface. KELMAR® FWC epoxy loaded to rejection with silica aggregates remains a breathable system.

Typical Uses

- As wear course in the KELMAR® FWC system
- Parking Garage floors
- Slab-on-grade areas
- Split-Slab design structures
- Stadiums

Features

- UV Resistant
- No odour
- Durable
- Flexible
- Available in a variety of colors

Limitations

- Substrate and air temperature must be a minimum of 10°C (50°F) and a maximum of 32°C (90°F) during the entire application cycle
- Substrate should be free of dirt, waxes, grease, oil and other foreign materials
- Concrete floors should have laitance removed via shot blasting, mechanical sanding or grinding
- New concrete surfaces should be cured a minimum 28 days before coating or delamination may occur
- Cracks and surface defects should be prepared prior to priming

Theoretical Coverage

- 89 sq. ft. per gallon at 18 wet mils
- 70 sq. ft. per gallon at 23 wet mils
- Coverage will vary depending on aggregate size
- Mix ratio – 1Part Resin : 1 Part Hardener

Physical Properties

- **Pot Life:** 20 Minutes @ 22°C (72°F)
- **Solids:** 91%
- **VOC Content:** 92 g/L less water
- **Tensile Strength** (ASTM D412) - 2000psi
- **Tensile Elongation** – no aggregate (ASTM D412) - 70%
- **Adhesion to prepared concrete** (ASTM D4541) - 17psi
- **Adhesion to Membrane** (ASTM D4541) - 20-30 psi
- **Water Vapour Transmission** (ASTM D1653) - 0.35 perms
- **Test for Surface Burning** (ASTM E-84) - F.S. 14 F.C. 0

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Chemical Resistance

Testing in accordance with ASTM-D-1308 spot test procedure indicates that Kelmar® FWC is unaffected by the following reagents:

Automotive Fluids:	
Grease	Heptane
Motor Oil	Hexane
Transmission Oil	Anti-Freeze
Gasoline	

Alkalis:
Ammonium Hydroxide (conc.)
Potassium Hydroxide 30%
Sodium Hydroxide 30%
Sodium Silicate 20%
Lime Water – Saturated Calcium Hydroxide Sol'n

Solvents:
Acetone
Methyl Ethyl Ketone
Denatured Alcohol
Butyl Alcohol
Butyl Acetate
Carbon Tetrachloride
Trichloroethylene
Cellosolve Solvent
Toluene
Xylene
Mineral Spirits

Organic Acids
Acetic 10%
Citric 20%
Lactic 40%
Gluconic 40%
Tartaric 40%

Inorganic Acids
Chromic 20%
Hydrochloric 30%
Nitric 40%
Hydrofluoric 20%
Phosphoric 50%

Inorganic Salts:
Calcium Chloride, 20%
Ammonium Chloride, 20%
Sodium Chloride, 20%
Sodium Carbonate, 20%
Sodium Phosphate, 20%
Sodium Sulfate, 20%
Magnesium Sulfate, 20%

Safety Precautions

Please refer to product Safety Data Sheet

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