



PRODUCT DESCRIPTION

GCR 2 is a two component, high performance, self-leveling, 100% solids, epoxy base coat with excellent adhesion properties. It is designed to create a seamless, glossy finish that is highly durable and chemical resistant. It conforms to Title 21 CFR 175.300 USDA requirements, and when used with various aggregates and fillers, has a compressive strength in excess of 13,500 psi.

- Zero VOC, Low Odor
- Highly Durable
- Non-Flammable
- Chemical, Impact and Abrasion Resistant
- Self-Leveling and re-coatable
- USDA Compliant

Intended Uses:

- Concrete Floors
- Pulp and Paper Mills
- Storage Tank Exteriors
- Aircraft, Automotive and Manufacturing
- Bridges and Structural Steel
- Wastewater Treatment Facilities
- Pharmaceutical Plants and Laboratories

PRODUCT CHARACTERISTICS

Resin Type: Cycloaliphatic Amine Cured Novolac Epoxy

Finish: High Gloss

Colors: Gray, White, Beige, Clear. Custom colors available.

(White epoxies tend to have diminished color retention and may amber over time. Darker colors are therefore recommended.)

Broadcast Materials: quartz, vinyl chips, aggregates

Colorant System: 844 Evonik/DeGussa

VOC: 0 g/L

Flash Point: >196°F

Solids: 100% (by weight and volume)

Mix Ratio: Pre-measured kits

Dwell Time: None

Reduction: None required. Acetone if necessary, but no more than 10% by volume.

Mils Thickness: 14-30 wet mils. Do not exceed 40 wet mils.

Pot Life: 1 hour @ 70°F (1 gallon mixed)

Drying Schedule (12 mils wet): (Temp/Humidity Dependent)

	<u>50°F/80%RH</u>	<u>75°F/50%RH</u>
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To Touch 6 hours 4 hours

Tack Free/Re-coat 8 hours 6 hours

Foot Traffic 24 hours 18 hours

Heavy Traffic 48 hours 48 hours

Full cure: 5-7 Days Mandatory.

Storage: 12 month shelf life, if stored unopened at 45°F-70°F (re-inspect after 1 year). Keep from freezing or prolonged exposure to sunlight and heat.

PRODUCT SYSTEM OPTIONS / COMPATABILITY

- Concrete: GCR 42 Primer
GCR 2/10 Epoxy Base Coat
- Concrete: GCR 42 Primer
GCR 2/10 Epoxy Base Coat
GCR 3 Clear Topcoat
- Steel: GCR 47 Acrylic Primer or Re-coatable Primer
GCR 2/10 Epoxy Base Coat

PACKAGING INFORMATION

All kits are pre-measured and shortfilled by weight. Kits yield the published coverage rates but may vary depending on application method and porosity of surface. Testing will establish coverage rates:

Kit Size	Activator	Container Size	Case
		Base	Qty
Sm Repair	Pint Tin	Pint Tin	4
Lg Repair	Quart Tin	Quart Tin	3
1 Unit	Gallon Tin	Gallon Tin	2
4 Unit	2 Gallon Pail	5 Gallon Pail	n/a

This product is classified as Shipping Class 55.

ASTM TEST RESULTS

Steel Substrate, prep. per SSPC-SP6, 1 coat GCR 42, 1 Coat GCR 2

Abrasion ASTM D4060 (taber) 1000 gr. load, 1000 cycles = 30-40 mg loss

Adhesion ASTM D4541 = 600 psi, ASTM 2197 = 6 kg

Average Critical Radiant Flux ASTM E648 = 0.70

Coefficient of Expansion ASTM E831 = 5.4x10, ASTM C531 14x10

Coefficient of Friction ASTM D2047 (dry/wet): Concrete 0.70/0.80, Tile (with anti-slip) 0.80/0.70, VCT 0.72/0.80

ASTM C1028: Concrete 0.80/0.65, VCT 0.78/0.68

Color and Gloss Retention (gloss@60°angle) = >95°, Loss ASTM D523 <10%, Color Loss ASTM D2244 <3.0

Compressive Strength ASTM C579 = 12,000-13,500 psi

Direct Impact Resistance ASTM D2794 (direct/reverse) = 180in./lb, ASTM D3134F = 0.06 max weight loss

Dry Heat Resistance ASTM D2485 = 200°F

Flame Spread NFPA 101 / ASTM E-84 Class B

Flammability ASTM D635 = Self-Extinguishing

Flexural Strength ASTM D790 = 4,500 psi, ASTM C580 = 3,500 psi, D4145 = passes

Hardness ASTM D3363 = 2H-4H, ASTM D2240 = 85-90

Hot Tire Pick Up ASTM @ 140°F = Passes

Humidity ASTM D2244 = +1500 hours

Salt Spray ASTM B117 (2000 hours/metal) = passes

Scrub Resistance ASTM D2486 = 13,000-15,000 cycles

Smoke Emissions ASTM E662 = Passes

Solvent Resistance (MEK double rubs) ASTM D4752 = 200

Water Absorption ASTM C413 = 0.1%, ASTM D570 = 0.04%

THEORETICAL COVERAGE RATES

Spread rate is dependent on application method, substrate and anticipated level of use. Below figures are for estimation purposes only. Testing should be completed for accurate figures. Application loss factor is not covered due to surface profile, porosity, application technique, surface irregularities, spillage, climatic conditions or film build:

Substrate	Sqft / Gallon
Concrete	80-160
Masonry	200-250
Metal, Steel	200-250
Block	80-160

CHEMICAL RESISTANCE

Resistance to fumes, splash and spillage, not immersion (ASTM 3912): Acetic 20%, Acetone, methyl/ethyl/isopropyl alcohol, Aluminum Chloride 60%, Ammonium Hydroxide 30%, Beer, Butyl Acetate, Butyl Cellosolve, Calcium Chloride 50%, Calcium Hydroxide, Calcium Tetrachloride 15%, Carbon Tetrachloride, Cellosolve Acetate, Citric 50%, Ethylene Glycol, Formaldehyde, Gasoline, Glycerine, Hydrochloric 30%, Hydrofluoric 10%, Hydrogen Peroxide, Hyjet #3, JPS Jet Fuel, Kerosene, Lactic 20%, MEK, Naptha, Nitro 20%, Oils-Mineral, Perchloroethylene, Phosphoric Acid, 80%, Potassium Hydroxide 40%, Skydrol 500 A&B, Sodium Chloride, Sodium Hydroxide 40%, Sulfuric 50%, Toluene, Trichlorethylene, Trisodium Phosphate-Sat, Urea, Urine, Xylene

CONTACT INFORMATION

For further technical questions or warranty issues, please contact Genesis Coatings at (800) 533-4273.