

4553™ Epoxy Coating

Special Coatings Repair for Sewer Structures

Physical Properties Data

GENERAL

The 4553™ Epoxy Coating is a 100% solids, two-component, cyclo-aliphatic amine cured epoxy coating for controlling the deterioration of concrete and clay infrastructure materials. The 4553™ EC is moisture tolerant, provides increased bond strength, broad range chemical resistance, and repairs chemical damaged concrete in damp environments.

USES

- Manholes, Lift Stations, Concrete and Steel Pipes
- Concrete Bottoms in Fiberglass Structures
- Secondary Containment
- Water Treatment Plant Structures
- Chemical Spill Resistance
- Steel Tank Components

FINISH: Glossy. Light gray color.

COVERAGE: 1600 ft² per gallon at 1.0 mil dry.

DRY FILM THICKNESS

Steel: 15 to 20 mils DFT.
Concrete: 80 to +250 mils DFT.

POT LIFE: 1-gallon is 25-minutes at 77°F. Higher temperatures and large quantities shorten pot life.

RECOAT TIME: 4-hrs. at 77°F.

THIN FILM SET TIME: 1-hr. at 77°F.

MAXIMUM RESISTANCE: 3-days.

4553™ EPOXY COATING SYSTEM

The 4553™ Epoxy Coating protects against sulfuric acid and harsh chemical environments, chlorides, sodium hydroxide, detergent, diesel fuel, gasoline, hydraulic fluid, bleach and oils; and including chemical spill applications.

APPLICATION

The 4553™ Epoxy Coating is a self-priming system for plural component applications. Heating reduces viscosity. It may be applied with zinc based UV [weather] resistant catalyzed acrylic epoxy top-coats for exposure protection. Use ICS # 45 Epoxy thinner for thinning and cleaning up.

TECHNICAL INFORMATION

Property	psi	
Compressive Strength	8 hr.	28-day
ASTM D 695	>9,800	10,694
Tensile Strength, Type I		
ASTM D 638		4,583
Elongation (%)		.26
Flexural Strength		
ASTM D 790		7,734
Adhesion Strength, Type IV		
ASTM D 4541	Steel Panel	1,216
	Concrete	1,623
Hardness, Shore D		
ASTM D 2240		83
Vapor Transmission		
ASTM D 1653		<0.4158 grains/ ft ² / h
Chemical Resistance:		
ASTM G 20		≥ .5 pH
60% Sulfuric Acid:		No Effect
Phase	Blistering	Color Change
Vapor:	No	No
Reagent:	No	Moderate
Exposure Vapor Phase		No Effect
Abrasion Resistance		
ASTM D 4060	1K grams@1K cycles	2.6 mg loss
Edge Retention		Good

*IV – Immersion, vapor.

APPLICATOR EQUIPMENT

(Non-plural applicators): Roughen surface with sandpaper or abrasive brush-blast. Wipe the repair area with Methyl Ethyl Ketone [MEK] and dry clean.

Airless	Graco or equal
Fluid Pump	45:1 or higher
Fluid Hose	3/8" ID or larger, high pressure, solvent resistant.
Tip (min)	.019 or larger. Reverse clean tip.
Air Source	Continuous at 80 to 100 psi

Pump	Binks or equal with pressure pot with mechanical agitator, dual regulators, air gauges, and oil and moisture separators.
Gun	No. 18 external mix
Fluid Nozzle	67
Fluid Needle	65
Fluid Line	½" or larger, high pressure, solvent resistant.
Air Line	¾" ID or larger
Air Cap	67 PB
Air Source	20 cfm or more at 80 per nozzle and 60 psi to the pot.

Conventional (small area repairs)

May be applied by brush or roller:

Roller	¾" or longer nap synthetic roll.
Brush	short hair or natural bristle or

MIXING INSTRUCTIONS

Mix the components in original containers while slowly pouring in the activator for 3 minutes using mechanical means. No induction period is required.

SURFACE PREPARATION

Concrete should be clean, dry, free of dirt and oil. Abrasive blast surface or etch using LG-Concrete Prep. Clean surface free from dust with dry air before applying the epoxy coating.

Mild_service:	hand or power tool clean to obtain a SSPC 2 or 3 profiles clean surface.
Moderate:	commercial blast clean to obtain SSPC 3 to 6 profile.
Corrosive:	near white or white metal blast to obtain SSPC 10 or SP-5 near white or white metal blast clean.

Steel - clean steel surface free of dirt, oil and contaminants:

CURING

Acceptable substrate temperatures range from above freezing 140° F maximum. The surface temperature should be at least 5° F above the dew point.

PACKAGING/ STORAGE/ SAFETY

55-gallon drums, 30-gallon drums, and 5-gallon pails. Shelf life is 6-months under dry conditions. May cause skin and eye irritation. Avoid prolonged contact and breathing of vapor. If swallowed, do not induce vomiting. In case of eye contact, flood with water and see a Physician immediately. Keep away from open flame. Close container after use.

WARRANTY INFORMATION

Manufacturer warrants this product to be of good quality and free from defects. Our liability and the Buyer's single remedy herein or otherwise, in law or connection, shall be limited to our replacement of the nonconforming product or, at our sole option, to credit the Buyer's account in the amount of the purchase price of the nonconforming goods. The corporation gives no warranty, whether of merchantability, fitness for purpose or otherwise, expressed or implied and in no event intends to infringe on any established patents or trademarks. Manufacturer reserves the right to determine whether any claim is specifically related to another cause. Report all product failures within 30-days from the application date. © All rights reserved.

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