ECI
Environmental Coatings, Inc.
Cost-Effective Environmentally Advanced Solutions

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ECI-3000

Zero-VOC UV Stable Urethane

Description

ECI-3000 is a uniquely versatile high- performance hybrid polyurethane top coat. ECI-3000 is a clear two component thermosetting, low odor, 100% solids, UV-stable urethane. It has been designed to be used in areas that require maximum abrasion and wear resistance.

Benefits

- Excellent Abrasion Resistance
- No VOC, Low Odor
- UV Stable
- High & Low Humidity Curable
- High & Low Gloss
- Applicable up to 6 mils
- Universal Colors

Uses

- Laboratories
- Hospitals
- Garages
- Pharmaceutical Plants
- Kennels
- Clean Rooms
- Schools
- Hangars
- Kitchens
- Commercial/Retail

Packaging

- 1 gallon metal pail - Resin
- 1 gallon black pail - Hardener

Storage

Materials should be stored indoors between 60°F and 90°F.

Shelf Life

One (1) year from date of manufacture.

Technical Data

Solids by Weight	100%
Mix Ratio (by volume)	1 Part Resin:2 Parts Hardener
	Satin: 1 Part Satin Resin:1 Part Hardener
Viscosity at 70°F	800 cps
Pot life at 70°F	60 minutes
Cure Time, Tack-Free at 70°F	10 to 12 hours (foot traffic), 24 hours (full traffic)
	Satin: 18-24 hours (foot traffic)
Working Time at 70°F, 50% RH	40 minutes
Recoat Window	36 Hours Maximum
Coverage Rate	6 mils, 267 sq ft/gallon
	3 mils, 534 sq ft/gallon
Volatile Organic Compound	0 VOC

Testing Data

PHYSICAL PROPERTY	TEST METHOD	RESULT
Konig Hardness (3 mils)	ASTM D-4366	171
Tensile Strength	ASTM D-2370	6,500 psi
Tensile Elongation	ASTM D-2370	8%

Adhesion	ASTM D-4541	400 psi, concrete failure (applied over epoxy)
Impact Resistance	ASTM D-2794	>160 in/lb
Water Absorption	ASTM D-570	<0.1%
Flame Test (3 mils over cement board)	ASTM D-648	Class 1
Abrasion Resistance CS17 Wheel 1000 GM Load 1000 Cycles	ASTM D-4060	10-15 mg loss, 24 hours 5-10 mg loss, 72 hours
Coefficient of Friction (James Friction Tester) Wet Dry	ASTM D-2047	 0.7 (smooth) 0.8 (smooth)

Surface Preparation

INSPECT THE FLOOR PRIOR TO INSTALLATION.

CHECK THE TEMPERATURE AND HUMIDITY:

ECI-3000 is sensitive to moisture and temperature during application and curing. Floor temperature and materials should be between 65°F (18°C) and 90°F (32°C). Humidity must be less than 90%. DO NOT coat unless floor temperature is more than five degrees above the dew point.

SURFACE PREPARATION

This product requires preparation in order to perform as expected. Substrate must be mechanically profiled (ASTM 4259-83), clean, sound, and dry.

Application

A gallon of ECI-3000 will cover in the following manner, with a standard spread rate* for a finish topcoat: 3-6 mils or 267-534 square feet per gallon. *Application of primer, body, and topcoats are variable in thickness depending upon condition of substrate and type of system.

MIXING INSTRUCTIONS

Application Equipment:

- Personal Protective Equipment (PPE) & clothing per SDS (Safety Data Sheet)
- Jiffy® Mixer Blade (ES Model)
- Clean Mixing Container
- Low Speed /High Torque Power Drill
- Shed-Resistant Roller Cover- 3/8” Nap
- Wide-Boy Bucket for “Dip ‘n’ Roll”

ECI-3000 offers extended working time up to 40 minutes at 70ºF, 50% RH. When mixed at 1 part Resin and 2 parts Hardener, it can be applied from 3-6 mils in thickness. 8 oz. of ECI Universal Pigment is recommended per gallon of material. When field pigmenting, it should be added and mixed in homogenously to the resin prior to adding the hardener. When combining, be sure to add the hardener into the clean mixing container first. Then add the resin (clear or pigmented) scraping out the container. Always pour into the center of the mixing container. Mix the components thoroughly for 1-2 minutes with a Jiffler ES style mix blade. Mix only enough material at one time that can be applied without exceeding the pot life.

RECOAT REQUIREMENTS

In the event of a recoat application beyond 36 hours, the existing topcoat should be lightly ground using 100-grit diamonds, vacuuming, and tack-wiping before re-application.

CLEANING GUIDELINES & MAINTENANCE

Allow floor coating to cure at least 3 days before cleaning by mechanical means (e.g., sweeper, scrubber, disc machine).