

PATCH & REPAIR KIT - ECODUR1 TECHNICAL SHEET

PRODUCT OVERVIEW

Ecodur1 is a fiber reinforced premium cool roof coating with superior adhesion and impact resistance. With no maximum thickness and a low-sag formula, Ecodur1 is a 1 coat solution on most substrates – generally requiring no base or topcoat. Ecodur1 is energy efficient and highly reflective, meeting the requirements of California Energy Commission (CEC) Title 24, and is listed by the CRRC. Ecodur1 is VOC-free, non-toxic and made out of sustainable materials, making it the environmentally-friendly choice as well as the top performing.

INTENDED USAGE

Ecodur1 waterproofs and protects a variety of substrates, including: acrylic (& cementitious), metal, mineral cap, asphalt, concrete, single ply (TPO, PVC, CSPE, EPDM) and more. It is intended as a restorative coating to extend the life of the existing roofing systems, when properly prepared, clean, dry, and tight.

PHYSICAL PROPERTIES AND PERFORMANCE CHARACTERISTICS

DURABILITY - ASTM C627: 16,000 passes of an average sized car. No debonding or deterioration

ESTIMATED TENSILE STRENGTH - ASTM D412: 475 PSI

PULL-OFF STRENGTH FROM STEEL - ASTM D4541: 1000 PSI with 95-100% cohesive

ESTIMATED ELONGATION - ASTM D412: 20-50%

HEAT RESISTANCE - CONTINUOUS: 212°F / 100°C

MINIMUM SERVICE TEMPERATURE: -20°F to -40°F / -30°C to -40°C

WATER ABSORPTION - ASTM D570: 0.3% - 30 g/m² @ 185°F / 85°C for 30 days

PERM RATING - ASTM D1653: USA PERM rating of 5 PERMS for 0.030 to 0.050 inches thickness

UN-CURED PRODUCT PROPERTIES

MIX RATIO: Use entire kit

POT LIFE: Less than 45 minutes. Decreases with heat

CURE TIME: Walkable in 12 hours. 24-36 hours to full cure

RECOAT WINDOW: Endless. Ecodur1 will always bond to clean, dry Ecodur1 and other Ecodur products.

SOLIDS: 100% solids, solvent-free, VOC-free

MAIN COMPONENTS: Part A: castor oil, hydrated gypsum, titanium oxides, glass fiber - Part B: Polymeric (MDI)

FINISHED PRODUCT CHARACTERISTICS

ODOR: Mild, pleasant vegetable oil and gypsum odor prior to curing - dissipates completely upon full cure.

WATER RESISTANCE: High resistance to water, sea water, hot or cold.

SOLVENT RESISTANCE: High resistance to most petro-chemical solvents with few exceptions. Refer to chemical compatibility charts.

SOLAR REFLECTANCE INDEX: 110 initial, 83 aged


ADHESION: Bonds to most roofing substrates, steel, concrete, wood, asphalt, tar, paints, itself and other Ecodur products, etc.

ADHESION TESTING (BEFORE APPLICATION): For best results, conduct an adhesion test (Tietex T272 or 325) to test the surface and to ensure no contaminants are present before application.

APPLICATION INSTRUCTIONS: Ensure that substrate is clean and dry. Warm unmixed kits to at least room temperature to make mixing easier. Do not mix at temperatures above 110°F (43°C). For best results, mix between 65 and 90°F (18 and 32°C). Mix Part A well. Pay extra attention to corners (it can help to use a plastic scraper or the edge of a stir stick). Use a scraper/stir stick to push all Part A product toward the Part B pouch. Starting at the back, fold over the Part A pouch and roll toward the Part B pouch, applying even pressure (like rolling a tube of toothpaste). Apply pressure at the seam between the two pouches until it bursts. Continue applying pressure until the entire seam is broken so that no product gets caught in the seam. With all the product in the Part B section, shake vigorously to fully mix Part B into Part A. Use a scraper/stir stick to move all contents to the A side of the pouch. Roll B side to condense product into A side. Continue shaking. Use the scraper/stir stick again to move all contents back to the B side of the pouch. Continue shaking an additional 30 seconds. Cut the corner and pour product around the repair area or into a separate container. Squeeze to remove as much product as possible. Apply with a chip brush. Use all mixed product within 35 minutes. At room temperature, cure time is approx. 12 hours to tack free, and 24-36 hours to full cure (less time on hot days).

STORAGE: Do not allow product to freeze. Store in a cool, dry place.

SHELF LIFE: Unopened containers have an undetermined shelf life. It is recommended that you use all product within 1 year. If product has been stored longer than 6 months, extra pre-mixing (Part A, before bursting Part B seam) will be required to free settled gypsum.

	Rated Product ID #: 1392-0001		
		Initial	Aged
	Solar Reflectance	0.86	0.69*
	Thermal Emittance	0.89	0.88*
<small>The ratings above are subject to CRRC rating program conditions, requirements, and limitations. Visit coolroofs.org for important information and disclaimers about CRRC rating conditions, requirements, and limitations.</small>			
<small>*CRRC Rapid Ratings: Interim laboratory-aged values that simulate naturally-aged values and will be replaced by the measured three-year naturally-aged values upon completion of the weathering process.</small>			