



ECODUR+ ROOF COATING TECHNICAL SHEET

PRODUCT OVERVIEW

Ecodur+ is a white, primerless, roof coating base coat that improves the performance of a variety of top coat choices. Due to superior bonding ability, it can be applied without pressure washing in most instances, while achieving a better bond than most primers, and better bleed protection than available bleed blockers. It expands and self levels during curing to create a smooth surface and hide substrate blemishes.

INTENDED USAGE

Use Ecodur+ as a base coat on a variety of substrates, including: acrylic (& cementitious), metal, mineral cap, asphalt, concrete, single ply (TPO, PVC, CSPE, EPDM) and more.

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: 900 PSI (6MPa)

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

ESTIMATED ELONGATION - ASTM D412: 20-60%

HEAT RESISTANCE - CONTINUOUS: 212F / 100C

MINIMUM SERVICE TEMPERATURE:

- 20 to - 40 F / - 30 to - 40 C

WATER ABSORPTION - ASTM D570:

0.3% - 30 g/m² @ 185F / 85C 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 BY WEIGHT: 83 parts catalyst (part A) 17 parts resin (part B)

MIX RATIO BY VOLUME: 4.25:1 A:B (volume measurements are subject to variations during mixing and stirring that may entrain air)

POT LIFE: Less than 45 minutes

CURE TIME: 12 hours to top coat. 24 to 36 hours to full cure

RECOAT WINDOW: Endless. Ecodur+ will always re-bond to itself.

SOLIDS: 100% solids, solvent free, VOC free

COMPONENTS: Part A: castor oil, hydrated gypsum - Part B: Polymeric (MDI)

FINISHED PRODUCT CHARACTERISTICS

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

FIRE PERFORMANCE: When tested in a accordance with CAN/ULC S102-M88 standard method of test for surface burning characteristics of building materials and assemblies, the flame spread classification is "1" or "A" with a flame spread value of 15 for the product used as a deck coating. For reference, untreated Red Oak is a combustible material that has a flame spread classification of 100 and inorganic reinforced cement board is a non-combustible material that has a flame spread classification of 0.

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.

UV RESISTANCE: UV causes the material to discolor after prolonged exposure. No substantial degradation of coating has been found on 25 year field samples or 1500 hour weatherometer tested samples. Note that it is recommended to use with an approved cool roof top coat.

ADHESION: Bonds to steel, concrete, itself, wood, asphalt, tar, paints, etc.

PULL-TESTING (BEFORE APPLICATION): For best results, conduct a pull test (TieTek T272 or 325, 4 inches wide) to test the surface and to ensure no contaminants are present before application.

STANDARD APPLICATION: Mechanically mix all of part A for 5 minutes making sure to scrape sides and bottom. Cordless drill mixers are not recommended as the product contains gypsum that settles during storage. Double auger mixers or other powered concrete mixing drill is recommended. After pre-mixing part A, add full part B while mixing. Continue mixing until fully combined, 2-3 minutes. Pre-plan your work area and make sure you can use all mixed product in 30-40 minutes. Dump product into work area and spread with notched squeegee, backroll immediately. There is no need to maintain a wet edge as product will continually bond to itself.

SMALL BATCH: For patching, penetrations, etc, mix all of part A thoroughly making sure to scrape sides and bottom. Measure out mixed part A as soon as possible to ensure that settling has not occurred. Mix 4.3 parts A with 1 part B.

THICKENING: When thicker product is desired for crack filling or building up, follow small batch instructions and use any of the pre-approved thickeners to achieve the thickness desired. Thickeners include: Fumed silica, crushed polyethylene, and powdered polystyrene.

STORAGE: Do not allow stored product to freeze. Store in a cool, dry place. Part B must be kept free of moisture. Keep container closed. Part B absorbs moisture from the air if left opened and can produce CO₂ gas, which can cause pressure build up. Store part A pails upside down if possible.

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, shaking can aid in freeing settled gypsum.