BASECOAT | INTELLIKOAT™ SYSTEM

# EnBase™ 110

## ActivTherm™ Thermal Energy Storage Basecoat

Water-based elastomeric acrylic | Phase change thermal storage | < 25 g/L VOC

## PRODUCT OVERVIEW

EnBase™ 110 is a water-based elastomeric acrylic basecoat that adds thermal energy storage to exterior surfaces. It carries EnKoat's ActivTherm™ technology, a blend of microencapsulated phase change materials that absorbs heat during the hottest part of the day and releases it after the peak has passed. The coated surface warms more slowly, runs cooler through peak sun, and sends less heat into the structure below.

EnBase 110 is the first coat of the two-coat IntelliKoat™ System. It bonds strongly to metal, single-ply, asphalt, concrete, and foam substrates, forms a flexible and breathable film, and is designed to be topcoated with EnFlex™ 210 for solar reflectance and weather protection. Its blue color makes coverage easy to verify before the topcoat goes on.

**27.6°F**
**Cooler at Peak Sun**
Two-coat system vs. uncoated substrate, outdoor test, July 2026

**7×**
**Thermal Performance**
Two-coat system vs. conventional reflective coatings, NREL validation

**3×**
**Lower Water Absorption**
7.6% vs. 22.2% average of 7 acrylic coatings, 24 hr immersion

**~2×**
**UV Shielding Life**
About 23 days vs. 11 days average for acrylic coatings, EnKoat method

## TYPICAL APPLICATIONS

- Flat and low-slope roofs, for restoration of existing roofs and for new construction
- Metal buildings, warehouses, and pre-engineered structures
- Data center, mining, and equipment enclosures
- Shipping containers and modular buildings
- RV, trailer, and mobile unit roofs
- Exterior concrete decks and slabs

## APPROVED SUBSTRATES

- Metal: galvanized, Galvalume, and factory-painted panels
- Single-ply membranes: TPO, PVC, and EPDM
- Asphalt-based roofing, including modified bitumen and smooth BUR
- Concrete and spray polyurethane foam (SPF)
- Previously coated surfaces, after a passing adhesion test

**Not recommended** for gravel-surfaced roofs, asphalt shingles or other steep-slope roofing, or surfaces in continuous immersion or below-grade service.

## COVERAGE & FILM THICKNESS

| Application | EnBase 110 Rate | Wet Film | Dry Film (approx.) | Topcoat |
|---|---|---|---|---|
| **IntelliKoat™ Restore 10 System** | 1.25 gal/sq | 20 mils | 12.2 mils | EnFlex 210 at 1.25 gal/sq |
| **IntelliKoat™ Restore 15 System** | 1.50 gal/sq | 24 mils | 14.6 mils | EnFlex 210 at 1.25 gal/sq |
| **IntelliKoat™ Perform 20 System** | 2.00 gal/sq | 32 mils | 19.5 mils | EnFlex 210 at 1.25 gal/sq |
| **Non-roof surfaces** | 1.25 to 2.00 gal/sq | 20 to 32 mils | 12.2 to 19.5 mils | EnFlex 210, per project spec |

1 square (sq) = 100 sq ft. Film thickness is theoretical at 61% volume solids and does not account for surface profile, overspray, or waste. Minimum field-verified system dry film thickness for IntelliKoat warranties: Restore 10, 24 mils; Restore 15, 28 mils; Perform 20, 32 mils. Contact EnKoat for project-specific coverage.

### PACKAGING
5 gal (19 L) pails, 55 gal (208 L) drums, and 275 gal (1,041 L) totes.

### STORAGE & SHELF LIFE
Store at 40°F to 90°F (4°C to 32°C) and protect from freezing. 12 months in unopened containers.

### WARRANTY
Issued separately. NDL system warranties require an EnKoat-Certified Contractor and EnKoat field inspection.


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## LIQUID PROPERTIES

| Property | Method | Typical Value | Property | Method | Typical Value |
|---|---|---|---|---|---|
| **Volume solids** | ASTM D2697 | 61% | **VOC** | – | < 25 g/L |
| **Weight solids** | ASTM D1644 | 64% | **Dry to touch** | ASTM D5895 | 1 to 2 hours at 72°F, 50% RH |
| **Density** | – | 9.06 lb/gal (1.09 kg/L) | **Full cure** | – | 48 hours |
| **Viscosity** | – | 18,040 cP | **Color** | – | Blue |

## CURED FILM PROPERTIES | ASTM D6083 PERFORMANCE REQUIREMENTS

| Property | Test Method | ASTM D6083 Requirement | EnBase 110 Result | Status |
|---|---|---|---|---|
| **Initial elongation** | ASTM D2370 | Min. 100% at 73°F | 160% | **Pass** |
| **Initial tensile strength** | ASTM D2370 | Min. 200 psi at 73°F | 225 psi | **Pass** |
| **Elongation after 1,000 hr weathering** | ASTM D2370 | Min. 100% at 73°F | Meets | **Pass** |
| **Water vapor permeance** | ASTM D1653 | Max. 50 perms | Meets | **Pass** |
| **Water swelling** | ASTM D471 | Max. 20% by mass | Meets | **Pass** |
| **Accelerated weathering** | ASTM D4798 | 1,000 hr, no cracking or checking | 1,000 hr, no cracking | **Pass** |
| **Adhesion** | ASTM D903 | Min. 2.0 pli | Meets | **Pass** |
| **Fungi resistance** | ASTM G21 | Zero rating | 0 rating | **Pass** |
| **Tear resistance** | ASTM D624 | Min. 60 lbf/in | Meets | **Pass** |

## COMPARATIVE PERFORMANCE DATA

| Test | Method | EnBase 110 Result | Competing Acrylics (Avg.) |
|---|---|---|---|
| **Water absorption** | 24 hr immersion, cured film | 7.6% | 22.2% |
| **UV shielding** | UV dye degradation, 40 mil wet film | 82% dye retained at 4 days | 63% dye retained |
| **Projected UV-shielding life** | Same method, extrapolated | ~23 days | ~11 days |
| **Adhesion** | ASTM D4541, EnKoat field test | 15 pli | 4.0 pli (lab, ASTM D903) |
| **Temperature, lab heat box** | Two-coat system, thermal camera | 4°F to 7°F cooler | Baseline |
| **Surface temperature, outdoor** | Two-coat system, peak sun | 27.6°F cooler than uncoated | – |
| **Thermal performance** | Independent validation, NREL | 7× better | Baseline: reflective coatings |

Laboratory comparisons were run by EnKoat side by side with commercially available acrylic roof coatings, June to July 2026; competing values are their average. Non-ASTM procedures are internal EnKoat methods and are not D6083 requirements. Adhesion is from EnKoat field testing. Temperature and NREL results reflect the full IntelliKoat System.

## APPLICATION GUIDELINES

**Surface preparation.** Surfaces must be clean, dry, and sound. Power wash to remove dirt, chalking, oil, biological growth, and loose coatings, then allow to dry. Repair damage and reinforce seams, transitions, and penetrations by embedding EnKoat reinforcement fabric into wet EnBase 110 and saturating it with a second pass.

**Adhesion testing.** Apply test patches on previously coated, weathered, or unfamiliar substrates before full application. Treat rust and prime bare or corroded metal with an EnKoat-approved primer.

**Mixing.** Stir thoroughly for at least 3 minutes before use. Do not thin or add other materials.

**Application.** Apply by airless sprayer, roller, or brush at the specified rate, checking wet film thickness with a gauge. Allow EnBase 110 to dry to the touch before applying EnFlex 210.

**Conditions.** Apply at 50°F (10°C) and rising. Do not apply if rain, dew, or high humidity is expected within 8 hours, or when the surface temperature exceeds 120°F (49°C).

**Cleanup and safety.** Clean tools with water and mild detergent while the coating is wet. Wear gloves and eye protection, and read the Safety Data Sheet before use.

Information in this data sheet is based on laboratory testing and field experience and is believed accurate as of the revision date. Values are typical, subject to normal production variation, and are not specifications or performance guarantees. Users are responsible for confirming suitability for each application. EnKoat makes no warranty, express or implied, including merchantability or fitness for a particular purpose, except as stated in a written EnKoat warranty issued for a specific project, and is not liable for incidental or consequential damages arising from use of this information. Data may change without notice; see www.enkoat.com for the current version.


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