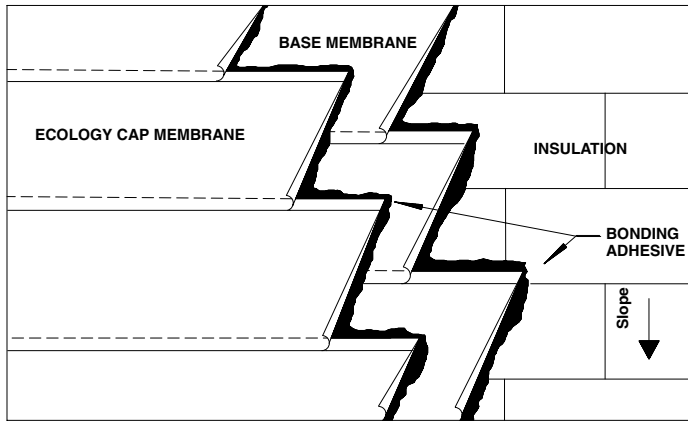


➔ **FOR APPLICATIONS OVER INSULATED ROOF SYSTEMS**



### MATERIALS LIST AND MEMBRANE OPTIONS

**Insulation/Fasteners:**

Insulation and Fasteners shall be as required for the project per Ecology's Design Specifications. Ecology's ERS-*INSULHESIVE* may be used to bond the base layer of insulation to a properly prepared concrete or lightweight insulating concrete deck with 3/4" - 1" beads laced 12" o.c.

**Bonding Bitumen For Base Plies:**

- ERS- All Temp: Steep Grade (Type III) ASTM D-312-84 at a minimum 25 lbs. per 100 SF.
- ERS-All Temp: Special Steep Grade (Type IV) ASTM D-312-84 at 25 lbs. per 100 SF.
- ERS Hot Flex: Modified Mopping Asphalt at 25 lbs. per 100 SF.
- ERS-302: Cold Process Interply Adhesive at 1-1/2 - 2 gal. per 100 SF.
- ERS-309: Cold Process Rubberized Interply Adhesive at 1-1/2 - 2 gal. per 100 SF.

**Primer:**

- ERS-301 Quick Dry Asphalt Primer at 125 - 150 SF. per gallon.

**Ecology Base Membrane Options (Select 1 Ply):**

- SBS Based: ERS-500, ERS-500-4, ERS-500-6 or ERS-500-6P

**Ecology Cap Membrane Options:**

- SBS/SEBS: ERS-501, ERS-502, ERS-503, ERS-504, ERS-604 or ERS-703

**Surfacing Options For Non-Granulated Sheets:**

Ecology Coating	Membranes Accepted	Min. Coverage Rate
ERS-305:	All except ERS-501, ERS-503 & ERS-703	1-1/2 - 2 gal. per 100 SF.
ERS-308:	All except ERS-501, ERS-503 & ERS-703	1-1/2 - 2 gal. per 100 SF.
ERS-200:	All except ERS-703	3 gal. per 100 SF.
ERS-White Top:	All except ERS-501, ERS-503 & ERS-703	2 gal. per 100 SF.

**Additional Surfacing Options For SBS:**

- ERS All Temp: Hot Applied Asphalt at 60 - 70 lbs per 100 SF. with pea gravel embedded at the rate of approx. 400 lbs. per 100 SF.
- ERS Hot Flex: Hot Applied Rubberized Asphalt at 60 - 70 lbs per 100 SF. with pea gravel embedded at the rate of approx. 400 lbs. per 100 SF.
- ERS-302/ or 309: Cold Process Adhesive at 2 gallons per 100 SF. for mineral granules. At a minimum 5 gallons per 100 SF. for graveled surfaces.
- ERS Granules: Apply in wet adhesive to cover surface.
- Roofing Gravel: ASTM D1863 roofing aggregate at 400 lbs per 100 SF.

### SPECIFICATION PROCEDURES

**GENERAL:**

This specification provides for the combined selection of an Ecology Base Ply Membrane and Ecology Cap Membrane over insulation. These specifications apply to positive slope roof systems with slopes up to 2", which have an insulation base attached to the deck system per the published design specifications of Ecology Roof Systems®, the insulation manufacturer, fastener manufacturer, and the latest Factory Mutual guidelines. All rolls should be unrolled and relaxed prior to installation.

Insulation installed over steel decks shall be secured per the latest recommendations of FM Loss Prevention Bulletin 1-28. Unless specifically approved by Ecology and the insulation manufacturer, all isocyanurate and other cellular foam boards must be overlaid with minimum 1/2" wood fiber or 3/4" perlite, basalt wool, or fiberglass insulation in accordance with NRCA recommended procedures. The substrate must be repaired, where damaged, if this specification is used for a replacement roof system.

**BASE MEMBRANE:**

Install the selected Ecology Base Membrane in hot asphalt or cold process adhesive in accordance with Ecology's approved procedures. For mop applications, where the maximum slope is 1/2" in 12", Type III asphalt can be used. Where the slope is over 1/2", Type IV asphalt should be used.

Begin by starting at the low point in the roof, laying the base membrane in shingle fashion perpendicular to the slope. The base sheets shall be lapped 2" on the sides and 4" at end laps, or as marked and required for selected membrane. All end laps should be staggered no less than 3' apart.

**NOTE:** Mechanical fastening of the base ply, requires an additional fully adhered layer of base membrane. Mechanical attachment of ERS Redi Deck is the only exception.

**CAP MEMBRANE:**

Install the Ecology membrane with hot applied asphalt or cold process adhesive beginning at the low point on the roof running parallel to the installed base membrane. Stagger the side and end laps of the cap membrane a minimum of 9" from the side and end laps of the base membrane. Mop systems should be rolled immediately into the hot asphalt with asphalt temperatures maintained at 400°F at the point of application. Mopping should proceed the roll no more than 3' with side laps mopped last. A uniform flow of bitumen of about 1/4" should be around all seams. Unless otherwise marked, side laps on the Ecology membranes shall be a minimum of 4" and end laps a minimum of 8". Cold process applications should have adhesive held back from the laps for welding with a hot air welder. Mopped applications may also have laps welded with hot air. For slopes of 1" - 2" per lineal foot, apply material parallel to the slope with head laps back-nailed 6" on center approximately 2" in from the edge. Stagger end laps a minimum of 36" from ends of the previous roll. Follow Ecology's published installation procedures for more detailed instructions.

**SURFACING:**

All smooth surface membranes must receive surface protection. Factory finished mineral and metal surface membranes do not require any additional protection, but mineral surfaces can be coated, if desired, using higher coverage rates for the rougher membrane surface. Follow application procedures outlined by Ecology Roof Systems® regarding preparation and dry time required.

Smooth surfaced SBS membranes, after a 30 day curing process, may be coated with one of the Ecology reflective coatings or can be surfaced with one of Ecology's hot applied asphalt blends with graded roofing aggregate embedded. The membranes may also be surfaced with an Ecology cold process adhesive with mineral granules embedded to cover the adhesive.

