

FOR USE ONLY UNDER ASPHALT SHINGLES

MEETS THE FOLLOWING CERTIFICATIONS: ICC-ES AC 188; ASTM D226; ASTM D4869; ASTM E108; CAN/CSA A123.3

INSTALLATION INSTRUCTIONS

- *Umbra™* Synthetic Roof Underlayment must be installed above properly ventilated spaces per local building codes, and is considered to be a vapor barrier.
- To prevent harmful condensation or heat buildup, air must circulate freely under the roof deck. All roof structures must have thorough ventilation to prevent entrapment of moisture laden air behind the roof sheathing. Ventilation provisions must meet or exceed adopted building codes.
- The roof deck should be swept clean of dirt and debris and be smooth and dry prior to installation. *Umbra™* Synthetic Roof Underlayment is limited to use with asphalt shingles.
- A sharp, straight edge cutting blade is recommended for cutting *Umbra™* Synthetic Roof Underlayment.
- *Umbra™* Synthetic Roof Underlayment should be installed when the ambient air and substrate temperatures, at the time of installation, are above 40°F (4°C).
- *Umbra™* Synthetic Roof Underlayment is laid horizontally (parallel to the eave) with the print side up with 4 inch (10 cm) horizontal laps and 6 inch (15 cm) side laps. Align head laps with the expected direction of flow of water in a shingling fashion.
- *Umbra™* Synthetic Roof Underlayment should generally be used at slopes of 4:12 or greater.
- Any material splice must be removed by cutting it out, then continue with the product install using standard overlap and fastening pattern.
- In normal wind zones, *Umbra™* Synthetic Roof Underlayment is attached to the roof with roofing nails or staples having a minimum 1 inch (2.5 cm) diameter plastic cap or metal cap spaced at 6 inches (15 cm) on center on both head and end laps, and 12 inches (30 cm) on center in the field area in the middle of the roll. Staples without caps should not be used when installing *Umbra™* Synthetic Roof Underlayment.
- Capped nails or staples may be hand or machine applied, but should be driven squarely into the deck to secure caps flush to the underlayment.
- In high wind zones or coastal applications, decrease the spacing to 4 inches (10 cm) on center on both head and end laps with 12 inches (30 cm) on center in the field area.
- In areas subject to wind speeds in excess of 110 miles per hour (177 km/h) (IBC and IRC), *Umbra™* Synthetic Roof Underlayment should be applied per Sections 1507.2.8.1 and 1507.3.3 of the IBC and Sections R905.3.3.3 and R905.2.7 of the IRC.
- For roofs required to have an ice barrier under the IBC or IRC, a self-adhered polymer modified bitumen sheet, complying with ASTM D1970 or the ICC-ES Acceptance Criteria for Self-Adhered Roof Underlayments for Use as Ice Barriers (AC48) shall be applied. The severe climate underlayment shall be applied over the solid substrate in sufficient courses that the underlayment extends up the roof a distance equal to the distance inside the exterior wall line of the building that is specified in the appropriate section of the applicable code. *Umbra™* Synthetic Roof Underlayment shall overlap the severe climate underlayment.
- *Umbra™* Synthetic Roof Underlayment should be covered by the final roof covering as soon as possible as it not designed for indefinite outdoor exposure. It is recommended that the final asphalt shingle roof covering should be installed no later than 30 days after the installation of *Umbra™* Synthetic Roof Underlayment.
- The procedures for new construction also apply for re-roofing applications after removal of the old roof covering and underlayment's to expose the roof deck.

SAFETY PRECAUTIONS
Read before use. Refer to MSDS for additional information.

- **CAUTION!** *Umbra™* roof underlayment may be slippery when wet or covered with mud, dust, frost, ice or snow.
- Comply with all OSHA or other standards and codes for roof work.
- Always use a Fall Protection System when working on roofs.
- Use roof jacks with planks, toe boards or storage platforms secured to the substrate to prevent slippage of stored material.
- Stay away from power lines, do not contact with body or equipment.
- On steep pitched surfaces, roof jacks with planks should be used for standing.
- Follow all ladder safety standards and codes.
- Never leave scraps, wrappers or other debris on the roof surface.
- Dispose of waste in accordance with local regulations.

