

CARLISLE WIP 400

WATER & ICE PROTECTION NON-SKID FILM SURFACE

Self-Adhering Roofing Underlayment

PRODUCT DESCRIPTION

Water and Ice Protection (WIP®) 400 Roofing Underlayment is a 40-mil self-adhering sheet membrane. WIP 400 is comprised of a strong, skid-resistant polyethylene film laminated to a thick layer of highly adhesive rubberized asphalt. A siliconized release sheet is used to prevent the material from sticking in the roll and is easily stripped away for installation.

INSTALLATION

General Information:

WIP 400 roofing underlayments are applied when the roof deck is dry and the substrate temperature is 40°F (4.4°C) or higher. At temperatures below 40°F, nailing or priming should be used to temporarily hold the membrane in place while adhesion develops. WIP 400 is designed to be covered with the primary roofing system and should not be exposed to sunlight for more than 60 days.

Moisture: Substrate must be free of any moisture. If moisture is present, it may inhibit adhesion.

New Construction: Prepare the roof deck by removing all loose objects, dirt, dust or debris.

Re-roofing: Remove all old materials from the roof deck in the area to be covered with WIP 400 roofing underlayment. Replace water-damaged sheathing and sweep roof deck thoroughly.

Priming: Priming is not required on clean, dry wood or metal surfaces but concrete masonry, exterior gypsum board and polyisocyanurate insulation should be primed using the appropriate primer or adhesive. Adhesives such as CCW-702 or CAV-GRIP are appropriate and required when temperatures are below 40°F.

Valleys, Hips & Ridges:

Cut WIP 400 roofing underlayment into manageable lengths. Align over the center of the valley, hip or ridge. Remove release film. Press the middle of the membrane first before working toward the edges. For open valleys, cover WIP 400 roofing underlayment with metal valley liners.

Eaves & Rakes:

Cut WIP 400 roofing underlayment into 10-15' pieces. Remove 2-3' of release film and align the edge of the membrane, sticky side down, so it overhangs the drip edge by 3/8" (10 mm). Continue to remove release film and press as you move across the roof. Use a hand roller and/or hand pressure to press into place. Overlap end laps a minimum of 6". WIP 400 roofing underlayment should reach a point 2' inside the interior wall line. Local codes may require additional courses. If additional courses are required, the top lap must be at least 3.5".

Drip Edges: At the rake edge, apply WIP 400 roofing underlayment first and place drip edge on top. At the eave, apply drip edge first and place WIP roofing underlayment on top of the drip edge so that it overhangs drip edge 3/8" (10 mm).

For standard installation details, follow the WIP detail drawings. For non-standard installation instructions, contact your local Carlisle Residential representative.

PRODUCT SPECIFICATIONS

PHYSICAL PROPERTIES

Surface	Black Engineered Polyolefin Composite Film with Factory-applied Anti-skid Coating
Membrane	Rubberized Asphalt

PRODUCT CHARACTERISTIC	UNITS	RESULTS
Roll Length	feet	75
Roll Weight	lbs.	62
Coverage Per Roll	sq./ft.	225
Roll Width	inches	36

TYPICAL PERFORMANCE PROPERTIES	TEST METHOD	RESULTS
Thickness	ASTM D1970	40 mils
Low Temperature Flexibility	ASTM D1970	-40°F
Adhesion to Plywood at 75°F	ASTM D1970	35 lbs./ft.
Lap Seam Adhesion at 75°F	ASTM D1970	21 lbs./ft.
Sealability Around Nail	ASTM D1970	Pass
Slip Resistance	ASTM D1970	Pass
Thermal Stability	ASTM D1970	Pass
Moisture Vapor Permeance	ASTM D1970	0.02 perms
Water Absorption	ASTM D1970	0.5%
Tensile Strength Machine Direction	ASTM D412	1200 psi
Tensile Strength Transverse Direction	ASTM D412	1390 psi
Elongation at Break Machine Direction	ASTM D412	490%
Elongation at Break Transverse Direction	ASTM D412	170%

PACKAGING INFORMATION

Boxes (rolls) per pallet	25
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ADVANTAGES

- **Moisture and Air Barrier:** WIP 400 protects the roof structure from water seepage caused by ice dams and wind-driven rains.
- **Self Sealing:** WIP 400 membranes seal around roofing nails, staples and screws.
- **Watertight:** Used to ensure the watertightness of the primary roofing system in critical areas.
- **Self Adhering:** WIP 400 membranes bond directly to the roof substrate for fast and easy installation without the need for additional adhesives.
- **Permanent Protection and Low Lifecycle Cost:** WIP 400 will not crack, dry out or rot and provides long-term waterproofing performance.
- **Aesthetically Pleasing:** WIP 400 is a concealed waterproofing system that will not detract from the architectural aesthetics of the primary roofing system.
- **Watertight Seams:** WIP 400 features an exposed rubberized asphalt bead along the edges that helps ensure the water tightness of the lap seams.

LIMITATIONS

- WIP 400 should be installed when air, roof deck and membrane temperatures are at or above 40°F (4.5°C).
- WIP 400 should not be left exposed to sunlight for more than 60 days.
- WIP 400 membrane should not be folded over the roof edge unless protected by a gutter or other flashing materials.
- The primary roof system must be ventilated to prevent excessive moisture build-up in the interior structure.
- Use caution during the installation of the membrane as it may become slippery when wet or covered with frost.
- WIP 400 should not be used under metal roofs.
- Do not apply when ambient temperature is below 40°F. Consult a Carlisle Representative for extreme high- or low-temperature applications. Applications below 40°F may require nailing of the membrane.
- Not to be used in contact with flexible PVC material.

APPLICABLE STANDARDS

- 2009 International Building Code™
- ICC-ES ESR #2206
- US-UL Classified
- Meets ASTM D1970
- State of Florida Approved Product FSA #FL6785

STORAGE

WIP 400 roofing underlayment rolls should be stored flat, under cover and in areas where the temperature is between 40° and 100°F (4.4° and 38°C). Do not double-stack pallets.

LIMITED WARRANTY

CARLISLE COATINGS AND WATERPROOFING INCORPORATED (CARLISLE) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any CARLISLE materials prove to contain manufacturing defects that substantially affect their performance, CARLISLE will, at its option, replace the material or refund the purchase price.

This limited warranty is the only warranty extended by CARLISLE with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. CARLISLE specifically disclaims liability for any incidental, consequential or other damages, including, but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of CARLISLE'S liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the CARLISLE material in question.

