

PRODUCT DESCRIPTION

Tough-Guard™ *EMBOSED* Ice and Water Membrane is a self-adhesive, glass fiber reinforced, modified bituminous roofing underlayment designed for use under metal roofing. Manufactured using a polyolefinic film on the upper side, this unique film laminate is non-abrasive and has anti-skid properties that provide good walkability. **Tough-Guard** is specially formulated for use in high temperature environments.

USAGE

Tough-Guard *EMBOSED* Ice and Water Armor helps to protect a building's deck or internal structure against leaks caused by ice and water damming and wind-driven rain. Ideally suited for use under metal roofing. It is also an excellent choice as an underlayment for shingles, slate, and mechanically attached tiles. **Tough-Guard** *EMBOSED* is highly effective in critical roofing areas such as valleys, ridges, coping joints, chimneys, vents, dormers, skylights, and low-slope sections.



STORAGE

- **Tough-Guard** *EMBOSED* rolls must be stored indoors, in a dry location.
- Rolls must be stored on end only. Do not store in a leaning position.
- The rolls must be protected from the elements. Do not expose to direct sunlight.
- Store rolls at room temperature. Prolonged exposure to elevated temperatures may reduce the adhesive characteristics of the material.

FEATURES AND BENEFITS

- Cost-effective sheet
- Clean, easy to handle, self-adhering application
- Specially formulated SBS with 250°F temperature rating
- Polymer modified asphalt gives excellent pliability
- UV resistant film surface
- Anti-skid treatment allows for good walkability
- Exceptionally durable - High tensile and tear strengths
- Glass fiber reinforcement imparts high dimensional stability
- Adheres to a variety of substrates
- Membrane lays flat and resists wrinkling for ease of application
- 60-day exposure allows for long term dry in
- Split-back release film peels off for easy installation and handling
- Instant watertight laps
- Self-seals around nails
- Meets ASTM D1970
- Florida Building Code FL16858

GENERAL PRECAUTIONS

- Install **Tough-Guard** *EMBOSED* only when material interface temperatures (air, deck, material) are 40°F and rising.
- Do not install when any form of moisture such as water, ice, snow, dew, rain, etc. is present.
- Ensure roof has proper drainage prior to installation.
- Proper ventilation is critical. When applying over the entire roof deck, the roofing system must provide sufficient ventilation, including both ridge and soffit venting.
- A full, irreversible adhesion is achieved when the underlayment goes through a complete heat cycle. Do not attempt to remove the underlayment immediately after adhesion to the substrate.
- Use of a hand-held "hot air gun" might help in enhancing the adhesion during application of underlayment in cooler weather.
- **Tough-Guard** *EMBOSED* shall not be used in adhesive (foam) set tile applications.
- Not recommended for extreme high temperature environments such as under copper or zinc metal roofing.
- **Tough-Guard** *EMBOSED* must be covered with a finished roof covering within the specified exposure time of the product. Refer to the section on Features and Benefits for exposure time.



SURFACE PREPARATION

- Surface must be clean, dry, and without voids that may interfere with adhesion.
- For re-roofing, all old roofing and other loose materials must be removed prior to installation.
- For a list of Acceptable Substrates for the adhesion of Tough-Guard products contact your BlueLinX Product Specialist at 888-502-BLUE or visit www.blulinx.com.
- For best results, surface may be primed with an ASTM D 41 Primer before installation of **Tough-Guard EMBOSSSED**.
- When primer is used, ensure the primer is fully dry prior to application of **Tough-Guard EMBOSSSED**.



WARRANTY

Tough-Guard EMBOSSSED is warranted to be free from manufacturer's defects.

PROPERTIES

Property	Typical Values	Reference Test	Property	Typical Values	Reference Test	Product Data	
Tensile Strength, MD	34 lbf/in	ASTM D1970	Flexibility temperature	-20° F	ASTM D1970	Width	36 in
Tensile Strength, XMD	28 lbf/in	ASTM D1970	Tear Resistance, MD & XMD	20 lbf	ASTM D1970	Length	66 ft 8 in
Elongation, mod. bit. portion	10% min	ASTM D1970	Slip Resistance	Pass	ASTM D1970	Thickness	48 mil (nominal)
Adhesion to Plywood @ 40°F	2 lbs/ft of width	ASTM D1970	Moisture vapor permeance	0.1 U.S. Perm or Less	ASTM D1970	Gross Coverage	2 squares
Adhesion to Plywood @ 75°F	20 lbs/ft of width	ASTM D1970	Sealability around nail	Pass	ASTM D1970	Weight	50 lb (nominal)
Thermal Stability, max	0.1 inch	ASTM D1970	Waterproof integrity	Pass	ASTM D1970		

NOTE:

All statements, information and data given herein are believed to be accurate and reliable but are presented without guaranty, warranty or responsibility of any kind, expressed or implied, except as may be indicated otherwise in this literature.

APPLICATION GUIDELINES

- Cut **Tough-Guard EMBOSSSED** roll to suitable, manageable lengths before installation.
- Place a full width piece of the pre-cut sheet on the substrate, parallel to the eave edge of the roof.
- Align the sheet so that it is parallel with the edge of the eave and extend over the eave and rake approximately 3/8".
- Fold back the sheet, and remove the exposed release film, taking care not to displace the sheet.
- Working from the center out, roll the sheet onto the substrate, taking care to avoid wrinkles and ridges.
- Sheet must be set straight. Repeat this process for the remaining half of the sheet.
- Apply a 1/16" thick layer of asphalt plastic cement over the eave and rake metal drip edges extending 2" to 3" onto the deck surface where the roll will intersect.
- Apply the next eave course in the same manner overlapping the first course at the end lap by 6".
- Lap the succeeding course over the lap area.
- Apply succeeding courses in like manner, as in steps above.
- Stagger the end laps a minimum 3' from the preceding course.
- Install capped or tin tagged nails 6 inches on center in the middle of the side lap or fasten according to applicable Building Code.
- At the T-joint (where an end lap and next overlapping course intersect), apply a bead of roofing lap cement before the overlapping course is laid.
- Roll the entire membrane surface, paying special attention to side laps, end laps and T-joints. Roller weight shall be 70 lb. minimum for low slope (<2:12 pitch) and 28 lb. minimum for steep slope (>2:12 pitch).