



CARLISLE'S **SURE-SEAL® DUSTED NON-REINFORCED EPDM MEMBRANES**



Overview

Sure-Seal 45-mil (1.14mm) and 60-mil (1.52mm) thick roofing membranes are non-reinforced Ethylene Propylene Diene Terpolymer (EPDM) based elastomeric homogenous roof coverings. These roofing membranes may be used for new single-ply roof construction and re-roofing applications. These membranes are available in widths of up to 50' (15 m) and lengths of up to 200' (60 m). All membranes are dusted. Both thicknesses are available as Fire Retardant (FR) membranes that are specially formulated to inhibit spread of flame and meet or exceed code body testing criteria for the fire retardant roofing membranes.

Features and Benefits

- Meets lightweight requirements
- Provides a monolithic assembly
- No special equipment required for installation
- EPDM has over 45 years of proven performance
- Available with FAT™ Seam Technology
- Ability to be installed over a variety of decks
- Full line of Pressure-Sensitive accessories

- Membranes are available in widths of up to 50' and lengths of up to 200' for faster installations and less seaming
- Available in FR formulations for increased fire resistance
- Fully adhered application allows for installation on any roof slope
- Ballasted applications provide excellent fire protection for the insulation and deck, superior energy efficiency, and the ability to perform as a "Cool Roof"

Carlisle's FAT Seam Technology

With Carlisle's Patented Factory-Applied Tape (FAT) Seam technology, most of the labor to create seams between membrane panels is completed in a quality-controlled, state-of-the-art environment. This process results in a reliable seam with greater peel and shear strengths and with no entrapped air bubbles. Consistent placement of the FAT also maximizes the splice area and results in a high-quality seam. Carlisle FAT is available on all Sure-Seal membranes up to 30' (9 m) in width, providing the fastest way to complete a seam in today's roofing market.

Installation

Sure-Seal 45-mil (1.14mm) and 60-mil (1.52mm) thick membranes are typically utilized in Design A: Fully Adhered (.060" only), Design B: Ballasted Roofing Systems and Design C: Loose-Laid Protected Roofing Systems.

For Design A: Fully Adhered Roofing System; insulation is mechanically attached or adhered to the roof deck. The substrate and membrane are coated with Carlisle Bonding Adhesive. The membrane is then rolled into place and broomed down. To complete seams between two adjoining membrane panels, apply primer to the splice area in conjunction with Carlisle's FAT. As an alternative, Carlisle's hand-applied SecurTAPE may be used.

For Design B: Ballasted Roofing System; insulation is loose-laid over the roof deck. Membrane is loose-laid over the insulation and secured with a minimum 10 lbs (4.5 Kg) of ballast per square foot. **Design C** is a similar system with the insulation installed on top of the membrane. To complete seams between two adjoining membrane panels, apply primer to the splice area in conjunction with Carlisle's FAT. As an alternative, Carlisle's hand-applied SecurTAPE may be used.



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Precautions

1. Use proper stacking procedures to ensure sufficient stability of the materials.
2. Exercise caution when walking on a wet membrane. Membranes are slippery when wet.
3. Membranes with FAT should not be exposed to prolonged jobsite storage temperatures in excess of 90°F (32° C), otherwise the shelf life of the FAT may be affected.
4. When membranes with FAT are used, shade the tape end of the rolls until ready to use in warm, sunny weather.

LEED® Info

Pre-consumer Recycled Content	0%
Post-consumer Recycled Content	3%
Manufacturing Location	Carlisle, PA Greenville, IL
Solar Reflectance Index	9

Sure-Seal Dusted EPDM

Typical Properties and Characteristics

Physical Property	Test Method	SPEC. (PASS)	.045	.060
Tolerance on Nominal Thickness, %	ASTM D412	±10	±10	±10
Weight, lbm/ft² (kg/m²)			0.26 (1.3)	0.35 (1.7)
Tensile Strength, min, psi (Mpa)	ASTM D412	1305 (9)	1600 (11.0)	1600 (11.0)
Elongation, Ultimate, min, %	ASTM D412	300	480	465
Tear Strength, min, lbf/in (kN/m)	ASTM D624 (Die C)	150 (26.3)	200 (35.0)	200 (35.0)
Factory Seam Strength, min	Modified ASTM D816	Membrane Rupture	Membrane Rupture	Membrane Rupture
Resistance to Heat Aging*	ASTM D573			
Properties after 28 days @ 240°F (116°C)				
Tensile Strength, min, psi (MPa)	ASTM D412	1205 (8.3)	1500 (10.3)	1450 (10.0)
Elongation, Ultimate, min, %	ASTM D412	200	225	280
Tear Strength, min, lbf/in (kN/m)	ASTM D624	125 (21.9)	215 (37.6)	215 (37.6)
Linear Dimensional Change, max, %	ASTM D1204	±1.0	-0.4	-0.50
Ozone Resistance*	ASTM D1149	No Cracks	No Cracks	No Cracks
Condition after exposure to 100 ppm Ozone in air for 168 hours @ 104°F (40°C) Specimen is at 50% strain				
Brittleness Temp., max, °F (°C)*	ASTM D746	-49 (-45)	-49 (-45)	-49 (-45)
Resistance to Water Absorption* After 7 days immersion @ 158°F (70°C) Change in mass, max, %	ASTM D471	+8, -2	+2.0	+2.0
Water Vapor Permeance* Max, perms	ASTM E96 (Proc. B or BW)	0.10	0.05	0.03
Resistance to Outdoor (Ultraviolet) Weathering* Xenon-Arc, 7560 kJ/m² total radiant exposure at 0.70 W/m² irradiance, 80°C black panel temp.	ASTM G155	No Cracks No Cracking	No Cracks No Cracking	No Cracks No Cracking

* Not a Quality Control Test due to the time required for the test or the complexity of the test. However, all tests are run on a statistical basis to ensure overall long-term performance of the sheeting.

Investing in Roofing Solutions for Over 45 Years

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