



# WATERPROOFING

## Sure-Seal® Standard & FR EPDM Membranes

### Description

Sure-Seal 45-mil (1.14 mm), 60-mil (1.52 mm) and 90-mil (2.29 mm) membranes are Ethylene Propylene Diene Terpolymer (EPDM)-based elastomeric homogenous roof coverings that can be used for a variety of waterproofing applications. Membranes are available in widths up to 10' (3 m) and lengths up to 100' (30 m). These membranes are available as Fire Retardant (FR) membranes, which are specially formulated to inhibit spread of flame and meet or exceed code body testing criteria for fire retardant roofing membranes.

### Installation

Sure-Seal 45-, 60- and 90-mil membranes are primarily utilized in Design A, Fully Adhered Roofing System/Waterproofing Systems. The substrate and membrane are coated with Carlisle Bonding Adhesive. The membrane is then rolled into place and broomed down. SecurTAPE and HP-250 Primer are applied to the splice area. As an alternate, Splicing Cement, In-Seam and Lap Sealant may be used for splicing. Consult CCW specifications for complete installation information.

### Warnings and Hazards

- Use proper stacking procedures to ensure sufficient stability of the materials.
- Exercise caution when walking on wet membrane. Membranes are slippery when wet.

### Limited Warranty

Carlisle Coatings & 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 materials or refund its 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.

### Typical Properties

Property	Method	Spec. (Pass)	Typical
Tolerance on Nominal Thickness, %	ASTM D412	±10	±10
Weight, 1bm/ft <sup>2</sup> (kg/m <sup>2</sup> )	—	—	0.26 (1.27)
45-mil			0.35 (1.71)
60-mil			0.59 (2.88)
90-mil			
Tensile Strength, min, psi (Mpa)	ASTM D412	1305 (9)	1600 (11.0)
Elongation, Ultimate, min %	ASTM D412	300	465
Tear Strength, min, lbf/in (kN/m)	ASTM D624 (Die C)	150 (26.3)	200 (35.0)
Factory Seam Strength, min	Modified ASTM D816	Membrane Rupture	Membrane Rupture
Resistance to Heat Aging*			
Properties after 28 days @ 240°F (116°C)	ASTM D573	1205 (8.3)	1450 (10.0)
Tensile Strength, min, psi (MPa)	ASTM D412	200	280
Elongation, Ultimate, min, %	ASTM D412	125 (21.9)	215 (37.6)
Tear Strength, min, lbf/in (kN/m)	ASTM D624	±1.0	-0.5
Linear Dimensional Change, max, %	ASTM D1204		
Ozone Resistance*			
Condition after exposure to 100 pphm Ozone in air for 168 hours @ 104°F (40°C) Specimen is at 50% strain	ASTM D1149	No Cracks	No Cracks
Brittleness Temp., max, °F (°C)*	ASTM D746	-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
Water Vapor Permeance* max, perms	ASTM E96 (Proc. B or BW)	0.10	0.03
Resistance to Outdoor (Ultraviolet) Weathering* Xenon-Arc, total radiant exposure at 0.70 W/m <sup>2</sup> irradiance, 80°C black panel temp.	ASTM G155	No Cracks No Cracking 7,560 kJ/m <sup>2</sup>	No Cracks No Cracking 41,580 kJ/m <sup>2</sup>

\*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.