

## SURE SEAL EPDM MATERIAL CERTIFICATION

This is to certify that CCW Sure-Seal EPDM membrane is a factory fabricated Ethylene Propylene Diene Terpolymer (EPDM) based elastomeric homogenous waterproofing membrane which may be used for a variety of waterproofing applications. Sure-Seal EPDM is Made in the USA.

Carlisle Coatings & Waterproofing certifies that it manufactures CCW Sure-Seal EPDM to comply with the following published ASTM standards and conforms to the specification requirements:

Sure Seal EPDM - Property	Method	Unit	Typical Value
Tolerance on Nominal Thickness, %	ASTM D 412	%	±10
Weight, 1bm/ft <sup>2</sup> (kg/m <sup>2</sup> ) 0.45 0.60			0.26 (1.3) 0.35 (1.7)
Color			Black
Tensile Strength, min, psi (Mpa) ASTM D412	1305 (9)	1630 (11.2)	1630 (11.2)
Elongation, Ultimate, min %	ASTM D 412	350	520
Tear Strength, min, lbf/in (kN/m) ASTM D624	175 (30.6) (Die C)	230 (40.3)	230 (40.3)
Factory Seam Strength, min Modified ASTM D816 Rupture	Membrane Rupture	Membrane Rupture	Membrane
Resistance to Heat Aging* Properties after 4 weeks @240°F (116°C) Tensile Strength, min psi (MPa) ASTM D 412 Elongation, Ultimate, min % ASTM D412 Tear Strength, min lbf/in (kN/m) ASTM D 624 Linear Dimensional Change, max, %	ASTM D573 1205(8.3) 225 150(26.3) ASTM D 1204	1600(11.0) 310 240 (42.0) +/-1.0	1600 (11.0) 310 240 (42.0) +/-1.4
Ozone Resistance* Condition after exposure to pphm Ozone in air for 168 hrs @ 104°F (40°C) Specimen is at 50% strain	ASTM D 1149	No cracks	No Cracks
Brittleness Temp., max, °F (°C)	ASTM D 746	-75 (-59)	-85 (-65)
Resistance to Water Absorption* ASTM D471 After 7 days immersion @ 158°F (70°C) Change in mass, max %		4.0	2.0
Water Vapor Permeance max, perms	ASTM E 96 (Proc. B or BW)	0.10	0.05
Resistance to Outdoor (Ultraviolet) Weathering* Xenon-Arc, 7560 kJ/m <sup>2</sup> total radiant exposure at 0.70 W/m irradiance, 80° black panel temp	ASTM G 4637 Conditions	No Cracks No Cracks	No Cracks No Cracks

Revised October 1, 2013