

DURO-LAST® SHINGLE-PLY® MEMBRANE

Advantages:

Duro-Last® 50-Mil Shingle-Ply® membrane is an excellent choice for projects requiring a long lasting, aesthetically appealing roofing membrane. Duro-Last custom-prefabricated accessories are compatible with the Shingle-Ply membrane.

Description:

Shingle-Ply membrane is composed of PVC film laminated to both sides of a reinforcement fabric (weft-inserted scrim).

Shingle-Ply membranes and accessories must not be used with Duro-Last EV membranes.

PVC Film - Proprietary thermoplastic PVC formulation of resins, plasticizers, stabilizers, biocides, flame retardants, and U.V. absorbents.

- PVC film above weft-inserted scrim – 21 mil

Weft-Inserted Scrim - An 18 x 14 polyester fabric construction with weft insertion, composed of 840 x 1000 denier threads, provides superior tear and puncture resistance. The polyester thread is treated to prevent wicking.

Total Thickness – 50 mil, nominal.

Weight – 0.29 lb. per square foot.

Colors – Slate Gray and Sandstone.

R-Value – 0.1 ft²·°F·hr/Btu.

Packaging – Shingle-Ply is supplied in the roll sizes shown below. A full pallet contains ten rolls.

Roll Dimensions

Dimensions ¹	Roll Area ²	Approx. Weight
60 in. x 100 ft.	500 sq. ft.	145 lb.
60 in. x 50 ft.	250 sq. ft.	73 lb.
30 in. x 100 ft.	250 sq. ft.	73 lb.
30 in. x 50 ft.	125 sq. ft.	37 lb.

¹ Custom rolls of maximum 5 ft by 240 ft may be produced upon request.

² Coverage will vary depending on roof dimensions due to the need to align the shingle pattern.



Cool Roof Rating Council (CRRC)

	CRRC ID	Solar Reflectance		Thermal Emittance		Solar Reflective Index (SRI)	
		Initial	3-yr	Initial	3-yr	Initial	3-yr
Slate Gray	0610-0007	0.29	0.32	0.88	0.91	30	35
Sandstone	0610-0003	0.24	0.24	0.88	0.91	23	25

NSF/ANSI 347 PLATINUM CERTIFIED

Warranty:

The following warranties are available for projects utilizing Shingle-Ply membrane. Contact Duro-Last for warranty details.

Available Warranties				
Ultra	15-Year NDH Hail Warranty	15-Year NDH Hail & High Wind Warranty	15-Year NDH High Wind Warranty	20-Year NDH High Wind Warranty
Basic	15-Year NDH Warranty		20-Year NDH Warranty	
Residential	15-Year Residential Material Limited Warranty		20-Year Residential Material Limited Warranty	

Codes and Standards:

Underwriters Laboratories (US & Canada), UL Evaluation Report (ER10128), Canadian Construction Materials Centre (CCMC 13299-L), State of Florida, Miami-Dade County, Texas Department of Insurance (TDI).

Storage:

Store rolls lengthwise on pallets. Use tarps to keep rolls dry.

Membrane Attachment:

Mechanically Fastened – Shingle-Ply membrane may be mechanically fastened to a variety of roof deck and wall materials. An appropriate slip sheet or cover board may be required. Refer to the Roll Good Mechanically Fastened Roofing System Specification for system requirements.

Adhered – Shingle-Ply membrane may be adhered to a variety of properly prepared roof decks, walls, cover boards and insulations. Refer to the Adhered Roofing System Specification for system requirements.

Physical Properties:

Shingle-Ply membrane has been subjected to the tests required by ASTM D4434 “Standard Specification for Poly (Vinyl Chloride) Sheet Roofing” and has been classified as a Type III, internally reinforced sheet. The results of each test are listed below. ASTM’s Overall Thickness requirements for the membrane are plus or minus 10% (nominal) of the listed Typical Value.

Physical Property	Test Method	ASTM D4434 Requirement	Result	Typical Value
Overall Thickness	ASTM D751	≥ 0.045 and ≤ 0.055 in. (≥ 45 and ≤ 55 mil)	PASS	0.050 in. (50 mil), nominal
Thickness Over Scrim	ASTM D7635	≥ 0.016 in.	PASS	0.021 in. (21 mil)
Breaking Strength ¹	ASTM D751 Grab Method	≥ 200 lbf./in.	PASS	438 x 390 lbf./in.
Elongation ¹	ASTM D751 Grab Method	≥ 15%	PASS	31% x 31%
Seam Strength	ASTM D751 Grab Method	≥ 328 lbf. (75% of Breaking Strength.)	PASS	417 lbf.
Tear Strength ¹	ASTM D751 Procedure B	≥ 45 lbf.	PASS	132 x 163 lbf.
Low Temp. Bend	ASTM D2136	Must pass at -40° F	PASS	PASS
Heat Aging	ASTM D3045	Conditioned for 56 days in oven maintained at 176° F.	PASS	PASS
Accelerated Aging	ASTM G155	10,000 hours total test time. Irradiance level of 0.35 W/m ² -340nm. Cycle: 102 minutes light, 18 minutes light + H ₂ O spray, 63±2.5° C black panel, 30±5% RH	PASS	PASS
Dimensional Stability ¹	ASTM D1204	Conditioned for 6 hours in oven maintained at 176° F. Allowable change: ≤ 0.5%	PASS	-0.30% x -0.45%
Water Absorption	ASTM D570	Immersed in water at 158° F for 168 hours. Allowable weight change: ≤ 3%	PASS	1.7%
Static Puncture	ASTM D5602	≥ 33 lbf.	PASS	56 lbf.
Dynamic Puncture	ASTM D5635	≥ 14.7 ft-lbf. (20 J)	PASS	≥ 14.7 ft-lbf. (20 J)

¹ Typical values are shown for both machine and cross machine directions. The machine direction results are listed first.

Additional Tests

Fungi Resistance	ASTM G-21	No sustained growth or discoloration
Moisture Vapor Transmission	ASTM E96, Proc. B, Method A	< 0.35 U.S. perms

