

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. The complete line of Duro-Last custom prefabricated accessories is 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 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. The same PVC film is used on both sides of the scrim.

- 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	Roll Area ¹	Roll Weight
64 in. x 150 ft.	800 sq. ft.	232 lb.
64 in. x 75 ft.	400 sq. ft.	116 lb.
32 in. x 150 ft.	400 sq. ft.	116 lb.
32 in. x 75 ft.	200 sq. ft.	58 lb.

¹ Coverage will vary depending on roof dimensions due to the need to align the shingle pattern.



Cool Roof Rating Council (CRRC)¹

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

¹ Duro-Last's CRRC Product ID: 0610.

Warranty:

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

Available Warranties				
Supreme	15-YR NDL	15 + 5 Material Only ²		15 + 5 ²
Ultra	15-YR Hail ¹	15-YR Hail & High Wind ¹	15-YR High Wind ¹	20-YR High Wind ¹
Basic	15-YR NDL ¹		20-YR NDL ¹	
Residential	15-YR Material Only ¹		20-YR Material Only ¹	

¹ Excludes consequential damage coverage.

² Excludes consequential damage coverage for last 5 years.

Codes and Standards:

Underwriters Laboratories (US & Canada), FM Approvals, ICC-ES (ESR-1660), 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 attached 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 Systems 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 Duro-Last Adhered Systems Specification for system requirements.

Physical Properties:

Shingle-Ply membrane has been subjected to the tests required by ASTM 4434 “*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	390 x 438 lbf./in.
Elongation ¹	ASTM D751 Grab Method	$\geq 15\%$	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 G154 (Formerly G53)	5,000 hours total test time. Irradiance level of 0.68 W/m ² -nm. Cycle: 8 hours at 145° F, 4 hours condensation at 122° F.	PASS	PASS
Dimensional Stability ¹	ASTM D1204	Conditioned for 6 hours in oven maintained at 176° F. Allowable change: $\leq 0.5\%$	PASS	-0.30% x -0.45%
Water Absorption	ASTM D570	Immersed in water at 158° F for 168 hours. Allowable weight change: $\leq 3\%$	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

