



DURO-LAST® SHINGLE-PLY® MEMBRANE

DATA SHEET

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 (scrim).

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.

- Shingle-Ply PVC film above scrim – 21 mils
- Tan or Gray PVC film below scrim – 17 mils

Scrim - An 18 x 14 polyester fabric construction 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 sq. ft.

Colors – Slate Gray and Sandstone.



Available Configurations:

Prefabricated Sections – Not Applicable.

Roll Dimensions

Width	Length	Roll Area ¹	Approx. Weight
64 inches	150 ft.	800 sq. ft.	232 lb.
64 inches	75 ft.	400 sq. ft.	116 lb.
32 inches	150 ft.	400 sq. ft.	116 lb.
32 inches	75 ft.	200 sq. ft.	58 lb.

¹Coverage 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					
10 Year	Material Only				
15 Year	NDL	High Wind	Hail	High Wind + Hail	
	Material Only			Residential	
20 Year	NDL	High Wind	15 + 5	15 + 5 Material	
	Prorated	Material Only		Residential	

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 on their sides and 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 Duro-Last 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 including Duro-Guard™ ISO products, DensDeck® Prime Roof Board and SECUROCK® Gypsum-Fiber Roof Board. Refer to the Duro-Last Adhered Systems Specification for system requirements.

Physical Properties:

Shingle-Ply membrane has been subjected to the tests required by the 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 as well as typical values are listed below.

Physical Property	Test Method	ASTM 4434 Requirement	Result	Typical Value
Overall Thickness	ASTM D751	≥ 0.045 in.	PASS	50 mil, nominal
Breaking Strength ¹	ASTM D751 Grab Method	≥ 200 lbf./in.	PASS	390 lbf x 438 lbf ¹
Elongation ¹	ASTM D751 Grab Method	≥ 15%	PASS	31% x 31% ¹
Seam Strength	ASTM D 751 Grab Method	≥ 292 lbf x 328 lbf (75% of Breaking Strength)	PASS	417 lbf
Tear Strength ¹	ASTM D751 Procedure B	≥ 45 lbf	PASS	132 lbf x 163 lbf ¹
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 hour total test time. Irradiance level of 0.68 W/m ² -nm. Cycle: 8 hour at 145 °F, 4 hour condensation at 122 °F	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% ¹
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 5635	≥ 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	< 0.22 U.S. Perms

