

Technical Data Sheet: IB 50 mil Single-Ply

Product Description: IB 50 mil Single-Ply is an ASTM D 4434-04, Type III polyester-scrim fabric reinforced, compounded resin based sheet with plasticizers, stabilizers, fillers, pigments and other proprietary materials, manufactured in a nominal 50 mil thickness, in 72" wide-by-90-foot (540 sq.ft.) rolls and 36" wide-by-90-foot (270 sq.ft.) rolls. IB 50 mil Single-Ply uses an anti-wicking polyester scrim for added strength and tear resistance that minimizes moisture intrusion between the sheet's top film and bottom film layers.

Packaging: 540 sq. ft. rolls, 180 lbs./roll, 270 sq. ft. rolls, 90 lbs./roll

Advantages:

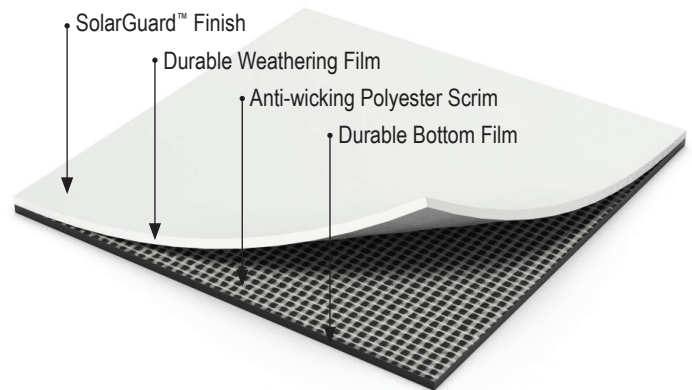
- IB 50 mil. Single-Ply is an ASTM D 4434-04, Type III Thermoplastic Membrane
- 15-Year Material Warranty
- Excellent flexibility in all climates
- The highly reflective IB White Single-Ply with SolarGuard™ finish helps to reduce temperatures of a building's interior (when used with a well designed roofing system)
- 56% thicker top film (above the scrim) layer versus other single-ply membranes
- Thermally welded seams provide superior seam strength
- Exceeds Energy Star™ and California Title 24 requirements for Solar Reflectance and Emissivity

Use: IB 50 mil Single-Ply can be installed in new, recover, and re-roof constructions as the primary field membrane, as a stripping ply for flashings, and as a base flashing reinforcement at all roof to wall transitions. IB 50 mil Single-Ply can be fully adhered to a properly prepared substrate (insulation, cover-board, or other pre-approved materials) with approved membrane adhesive or mechanically attached with approved fasteners and membrane plates. Optional attachments are available but need to be pre-approved by IB Technical Services Department. All laps side and end laps are to be thermally welded using a hot air welder with a minimum weld width of 1-1/2".

Approvals and Listings: IB 50 mil Single-Ply is listed with various component assemblies at UL and Factory Mutual (F.M. Global) for fire, wind uplift, impact, and chemical resistance. Visit our website for links to these agencies and listings at: www.ibroof.com

Warranties: IB 50 mil Single-Ply has a 15-Year Material Warranty and is available for 'Warranty Plus' and 'Total System' warranties for qualified IB Roof Systems applicators. Contact IB Roof Systems at (800) 426-1626, or visit our website at: www.ibroof.com

Available Colors: White, tan, gray and brown. Call your local IB Sales Representative for colored product availability.



Solar Reflectance / Thermal Emittance / Calculated SRI Values					
Membrane Color	Solar Reflectance	Thermal Emittance	SRI Value (Low Wind)	SRI Value (Medium Wind)	SRI Value (High Wind)
White	0.870	0.88	108.9	109.0	109.1
Tan	0.366	0.87	39.1	39.9	40.7
Gray	0.163	0.88	12.4	13.5	14.5
Brown	0.079	0.87	0.8	2.3	3.6

Property	Method	Requirement	50 Mil
Overall thickness of PVC sheet, min. mm (in.)	ASTM D751	1.14 (0.045)	1.27 (0.05)
Thickness over the scrim, min. mm (in.)		0.40 (0.016)	0.635 (0.025)
Breaking strength, min. kN/m (lbf/in.)	ASTM D751	35 (200)	65 (370)
Elongation at the break, min. %:	ASTM D751		
Machine direction		15 ^B	40
Cross-machine direction		15 ^B	38
Retention of properties after heat aging:			
Breaking strength, min. % of original		90	90
Elongation, min. % of original		90	90
Tearing strength, min. N (lbf)	ASTM D751	200 (45.0)	320 (72.0)
Low temperature bend	ASTM D2136	Pass	Pass
Accelerated weathering test:	ASTM G53		
Cracking (7x magnification)		None	None
Crazing (7x magnification)		None	None
Linear dimension change, max %	ASTM D1204	0.5	0.5
Change in weight after immersion in water, max %	ASTM D570	+/- 3.0	1.5
Static puncture resistance	ASTM D5602	Pass	Pass
Dynamic puncture resistance	ASTM 5636	Pass ^C	Pass

A: Above the cross points of any fabric or fiber and the surface exposed to the weather.
 B: For reinforcing fabric only; elongation of PVC material shall be the same as Type II, Grade 1.
 C: For Type II, Grade 1 products, dynamic puncture shall be evaluated at an energy level to 10 J min. For Type II, Grade 2 and Type III products, dynamic puncture shall be evaluated at an energy level of 20 J min.