

PARADIENE 40 FR BW



Commercial Product Data Sheet

Product Description

Paradiene 40 FR BW is a high performance, modified bitumen finish and flashing ply designed for use in hybrid and multi-layer modified bitumen roof membrane systems. Paradiene 40 FR BW consists of a fiberglass scrim/fiberglass mat composite impregnated and coated with high quality styrene-butadiene-styrene (SBS) modified bitumen, and surfaced with highly reflective, white mineral granules.

Product Uses

Paradiene 40 FR BW is used as a finish ply in multi-layer Paradiene Systems, and as a base flashing material. Paradiene 40 FR BW is lapped 4 inches (10.2 cm) at sides and 6 inches (15.2 cm) at ends, and is typically applied using PA-311 series Adhesive or PA-828 Flashing Cement.

Product Approvals

Paradiene 40 FR BW is classified by Underwriters Laboratories for use in cUL_{us} Classified Siplast Paradiene 40 FR BW Roof Systems. Paradiene 40 FR BW has been classified by Underwriters Laboratories as a Class A roofing system over non-combustible, insulated non-combustible, and insulated combustible decks, and a Class B roofing system over combustible decks.

Paradiene 40 FR BW meets or exceeds the requirements of ASTM D6163 Type II, Grade G, and CSA A123.23-15 Type B, Grade 1 for SBS-modified bituminous sheet materials using glass fiber reinforcements.

Paradiene 40 FR BW meets the reflectance and emittance requirements of Title 24 Part 6 for the state of California. CRRC rated product ID is 0742-0018. Additionally, Paradiene 40 FR BW qualifies for LEED certification points as defined by the United States Green Building Council. Please contact Siplast for specific information on reflective and emittance properties associated with energy regulations and guidelines.

Siplast Roof Systems also have received the approval of many regional and local authorities. Please contact Siplast for specific information as required.

Current copies of all Siplast Commercial Product Data Sheets are posted on the Siplast Web site at www.Siplast.com.

COMMERCIAL PRODUCT INFORMATION

Unit:	Roll		
Coverage:	0.75 Square	(7.0 m ²)	
Coverage Weight Per Square:	Min: 98 lb	(4.78 kg/m ²)	
Roll Length:	Min: 26.0 ft	(7.92 m)	
Roll Width:	Avg: 3.28 ft	(1.00 m)	
Thickness:	Avg: 157 mils	(4 mm)	
Thickness at Selvage:	Avg: 130 mils	(3.3 mm)	
	Min: 126 mils	(3.2 mm)	
Selvage Width:	Avg: 3.75 in	(95 mm)	
Selvage Surfacing:	Silica parting agent		
Top Surfacing:	Specially formulated white mineral granules.		

Back Surfacing: Silica Parting Agent

Lines: A laying line is placed 4 in (10.2 cm) from selvage edge of the material. The line color for this material is orange.

Packaging: Rolls are wound onto a compressed paper tube. The rolls are placed upright on ends opposite the selvage on pallets cushioned with corrugated cardboard and are adhered with adhesive at the labels. The top of the palletted rolls is covered with foiled Kraft paper. The palletted material is protected by a heat shrink polyethylene shroud.

Pallet: 41 in X 48 in (104 cm X 122 cm) wooden pallet
Number Rolls Per Pallet: 25
Number Pallets Per Truckload: 20
Minimum Roll Weight: 74 lb (33.5 kg)

Storage and Handling: All Siplast roll roofing products should be stored on end on a clean flat surface. Care should be taken that rolls are not dropped on ends or edges and are not stored in a leaning position. Deformation resulting from these actions will make proper installation difficult. All roofing should be stored in a dry place, out of direct exposure to the elements, and should not be double stacked. Material should be handled in such a manner as to ensure that it remains dry prior to and during installation.

Rev 5/2020

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Physical and Mechanical Properties

UNITED STATES TEST STANDARDS			CANADA TEST STANDARDS	
Property (as Manufactured)	Values/Units	Test Method	Property (as manufactured)	Test Method CSA A123.23-15 Values/Units
Thickness (average)	157 mils (4 mm)	ASTM D 5147 section 6	Thickness (average)	4 mm (157 mils)
¹ Thickness at selvage (minimum) (average)	126 mils (3.2 mm) 130 mils (3.3 mm)	ASTM D 5147 section 6	¹ Thickness at selvage (minimum) (average)	3.2 mm (126 mils) 3.3 mm (130 mils)
² Peak Load @ 73°F (23°C) (average)	80 lbf/inch (14.1 kN/m)	ASTM D 5147 section 7	² Peak Load 23°C (73°F) (average)	14.1 kN/m (80 lbf/inch)
² Peak Load @ 0°F (-17°C) (average)	150 lbf/inch (26.5 kN/m)	ASTM D 5147 section 7	² Peak Load @ -17°C (0°F) (average)	150 lbf/inch (26.5 kN/m)
² Elongation @ Peak Load, 73°F (23°C) (average)	5%	ASTM D 5147 section 7	² Elongation @ Peak Load, 23°C (73°F) (average)	5%
² Elongation @ Peak Load, 0°F (-17°C) (average)	4%	ASTM D 5147 section 7	² Elongation @ Peak Load, -17°C (0°F) (average)	4%
² Ultimate Elongation @ 73°F (23°C) (average)	80%	ASTM D 5147 section 7	² Ultimate Elongation @ 23°C (73°F) (average)	80%
² Tear Strength (average)	120 lbf (0.54 kN)	ASTM D 5147 section 8	N/A	N/A
Water Absorption (maximum)	1%	ASTM D 5147 section 10	N/A	N/A
Dimensional Stability (maximum)	0.1%	ASTM D 5147 section 11	Dimensional Stability (maximum)	0.1%
Low Temperature Flexibility (maximum)	-15°F (-26°C)	ASTM D 5147 section 12	Low Temperature Flexibility (maximum)	-26°C (-15°F)
Granule Embedment Max. avg. loss Max. individual loss	1.5 grams per sample 2.0 grams per sample	ASTM D 5147 section 15	Granule Embedment Max. avg. loss Max. individual loss	1.5 grams per sample 2.0 grams per sample
Compound Stability (minimum)	250°F (121°C)	ASTM D 5147 section 16	Compound Stability (minimum)	121°C (250°F)
Solar Reflectance (Avg)	0.74	ASTM C1549	Solar Reflectance (Avg)	0.74
Thermal Emittance (Avg)	0.91	ASTM C1371	Thermal Emittance (Avg)	0.91
Solar Reflectance Index (Avg)	92	ASTM E1980	Solar Reflectance Index (Avg)	92
Cyclic Fatigue	Paradiene 40, bonded to an acceptable Paradiene 20 base ply with an approved method of attachment, passes ASTM D5849 both as-manufactured and after heat conditioning according to ASTM D5147.		Mass Per Unit Minimum	4.78 kg/m ² (98 lb/sq)

1. Measured on the selvage edge excluding the granule surfacing.
2. The value reported is the lower of either MD or XD.