

# PARADIENE 40 FR



## Commercial Product Data Sheet

### Product Description

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

Paradiene 40 FR is available with Siplast RoofTag RFID roof asset technology on a Special-Made-To-Order basis. See RoofTag Commercial Product Data Sheet for more information.

### Product Uses

Paradiene 40 FR is used as a finish ply in multi-layer Paradiene Systems, and as a base flashing material where granule-surfaced flashing sheets are required. Paradiene 40 FR is lapped 4 inches (10.2 cm) at sides and 6 inches (15.2 cm) at ends, and is applied using PA-311 Adhesive, approved Type IV Asphalt, or SFT Adhesive.

### Product Approvals

Paradiene 40 FR is classified by Underwriters Laboratories for use in cULus Classified Siplast Paradiene 40 FR Roof Systems. Paradiene 40 FR 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 meets or exceeds the requirements of ASTM D 6163 Type II, Grade G, and CSA A123.23-15 Type B, Grade 1 for SBS-modified bituminous sheet materials using glass fiber reinforcements.

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](http://www.Siplast.com).*

### COMMERCIAL PRODUCT INFORMATION

Unit:	Roll	
Coverage:	0.75 Square	(7.0 m <sup>2</sup> )
Coverage Weight Per Square:	Min: 114 lb	(5.5 kg/m <sup>2</sup> )
Roll Length:	Min: 26 ft	(7.92 m)
Roll Width:	Avg: 3.28 ft	(1.00 m)
Thickness:	Avg: 154 mils	(3.9 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: No. 11 ceramic granules, standard color finish is #A-720 Bone White. Contact Siplast for other available colors.

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: 18  
Minimum Roll Weight: 86 lb (39.0 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.

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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)	154 mils (3.9 mm)	ASTM D 5147 section 6	Thickness (average)	3.9 mm (154 mils)
<sup>1</sup> Thickness at selvage (minimum) (average)	126 mils (3.2 mm) 130 mils (3.3 mm)	ASTM D 5147 section 6	<sup>1</sup> Thickness at selvage (minimum) (average)	3.2 mm (126 mils) 3.3 mm (130 mils)
<sup>2</sup> Peak Load @ 73°F (23°C) (average)	80 lbf/inch (14.1 kN/m)	ASTM D 5147 section 7	<sup>2</sup> Peak Load @ 23°C (73°F) (average)	14.1 kN/m (80 lbf/inch)
<sup>2</sup> Peak Load @ 0°F (-17°C) (average)	150 lbf/inch (26.5 kN/m)	ASTM D 5147 section 7	<sup>2</sup> Peak Load @ -17°C (0°F) (average)	26.5 kN/m (150 lbf/inch)
<sup>2</sup> Elongation @ Peak Load, 73°F (23°C) (average)	5%	ASTM D 5147 section 7	<sup>2</sup> Elongation @ Peak Load, 23°C (73°F) (average)	5%
<sup>2</sup> Elongation @ Peak Load, 0°F (-17°C) (average)	4%	ASTM D 5147 section 7	<sup>2</sup> Elongation @ Peak Load, -17°C (0°F) (average)	4%
<sup>2</sup> Ultimate Elongation @ 73°F (23°C) (average)	80%	ASTM D 5147 section 7	<sup>2</sup> Ultimate Elongation @ 23°C (73°F) (average)	80%
<sup>2</sup> 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)
Cyclic Fatigue	Paradiene 40 FR, bonded to an acceptable Paradiene 20 base ply with an approved method of attachment, passes ASTM D 5849 both as-manufactured and after heat conditioning according to ASTM D 5147.		Mass Per Unit Area	5.5 kg/m <sup>2</sup> (115 lb/sq)

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