

# PARADIENE 40 CR FR



## Commercial Product Data Sheet

### Product Description

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

### Product Uses

Paradiene 40 CR FR is used as a finish ply in multi-layer Paradiene Systems, and as a base flashing material. Paradiene 40 CR 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 or PA-100 Asphalt.

### Product Approvals

Paradiene 40 CR FR is approved by Underwriters Laboratories for use in cUL<sub>us</sub> Classified Siplast Paradiene 40 FR Roof Systems. Paradiene 40 CR 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 CR FR meets or exceeds the requirements of ASTM D 6163 Type II, Grade G, for SBS-modified bituminous sheet materials using glass fiber reinforcements.

Paradiene 40 CR FR meets the reflectance and emittance requirements of Title 24 Part 6 for the state of California. Additionally, Paradiene 40 CR FR 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.

### COMMERCIAL PRODUCT INFORMATION

Unit:	Roll		
Coverage:	0.75 Square	(7.0 m <sup>2</sup> )	
Coverage Weight Per Square:	Min: 99 lb	(4.8 kg/m <sup>2</sup> )	
Roll Length:	Min: 26.0 ft	(7.92 m)	
Roll Width:	Avg: 3.28 ft	(1.00 m)	
Thickness:	Avg: 138 mils	(3.5 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 synthetic chips.		
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 (33.6 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.

Current copies of all Siplast Commercial Product Data Sheets are posted on the Siplast Web site at [www.Siplast.com](http://www.Siplast.com).

# PARADIENE 40 CR FR

## Physical and Mechanical Properties

Property (as Manufactured)	Values/Units	Test Method
Thickness (average)	138 mils (3.5 mm)	ASTM D 5147 section 5
<sup>1</sup> Thickness at selvage (minimum) (average)	126 mils (3.2 mm) 130 mils (3.3 mm)	ASTM D 5147 section 5
<sup>2</sup> Peak Load @ 73°F (average)	80 lbf/inch (14.1 kN/m)	ASTM D 5147 section 6
<sup>2</sup> Peak Load @ 0°F (average)	150 lbf/inch (26.5 kN/m)	ASTM D 5147 section 6
<sup>2</sup> Elongation @ Peak Load, 73°F (average)	5%	ASTM D 5147 section 6
<sup>2</sup> Elongation @ Peak Load, 0°F (average)	4%	ASTM D 5147 section 6
<sup>2</sup> Ultimate Elongation @ 73°F (average)	80%	ASTM D 5147 section 6
<sup>2</sup> Tear Strength (average)	120 lbf (0.54 kN)	ASTM D 5147 section 7
Water Absorption (maximum)	1%	ASTM D 5147 section 9
Dimensional Stability (maximum)	0.1%	ASTM D 5147 section 10
Low Temperature Flexibility (maximum)	-13°F (-25°C)	ASTM D 5147 section 11
Granule Embedment Max. avg. loss Max. individual loss	N/A	ASTM D 5147 section 14
High Temperature Stability (minimum)	250°F (121°C)	ASTM D 5147 section 15
Solar Reflectance (Avg)	0.72	ASTM C1549
Thermal Emittance (Avg)	0.81	ASTM C1371
Solar Reflectance Index (Avg)	87	ASTM E1980
Cyclic Fatigue	Paradiene 40 CR 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 D5147.	

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