PARADIENE 20 SA

Commercial Product Data Sheet

Product Description

Paradiene 20 SA is a high performance, self-adhesive, modified bitumen base ply designed for use in homogeneous multi-layer modified bitumen roof membrane systems. Paradiene 20 SA consists of a lightweight random fibrous glass mat impregnated and coated with high quality styrene-butadiene-styrene (SBS) modified bitumen. The back surface is coated with a self-adhesive bitumen layer specifically formulated for optimum adhesion in low-slope membrane applications, and it is lined with a high strength polyolefin release film.

Paradiene 20 SA 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 20 SA is designed to be used as a base ply for direct application to approved roof board products, and other approved substrates. Paradiene 20 SA is also used as a stripping ply for reinforcing details at metal flanges, walls, and curbed penetrations. Extending Paradiene 20 SA stripping ply onto the top surface of any Paradiene 20 layer requires either removal of the top film surfacing from a film-surfaced Paradiene 20, or priming a sand-surfaced Paradiene 20 using an approved primer.

Paradiene 20 SA is the first ply of all fully adhered Siplast Paradiene 20 SA/Paradiene 30 TG Systems. It is lapped 3 inches (7.6 cm) on sides and ends. End laps require heat welding. An alternative to the standard end lap method is seaming end joints using a 12-inch (30.4 cm) wide strip of Paradiene 20 TG. Paradiene 20 SA is designed for direct application to approved insulations and roof boards, primed structural concrete decks, and other approved substrates. Paradiene 20 SA is used as a base ply in multi-layer roof systems with a torch applied finish layer of Paradiene TG, Veral, or Parafor. Prior approval from the Siplast Technical Department is required for SA membrane systems installed without a torch applied finish layer. All laps of the Paradiene 20 SA must be heat welded when the Paradiene TG or Parafor TG over-layer is not installed during the same day's application.

Product Approvals

Contact Siplast for specific information regarding FM Class 1 windstorm resistance classifications.

Paradiene 20 SA is classified by Underwriters Laboratories as an acceptable substitute for Paradiene 20 TG in all $_{c}UL_{us}$ classification listings and assemblies.

Paradiene 20 SA meets or exceeds the requirements of ASTM D6163 Type I, Grade S, and CSA A123.23-15 Type A, Grade 1 for SBS-modified bituminous sheet materials using glass fiber reinforcements.

COMMERCIAL PRODUCT INFORMATION

Unit:	Roll		
Coverage:	1.0 Square		(9.3 m²)
Coverage Weight Per Square:	Min:	72 lb	(3.5 kg/m²)
Roll Length:	Min:	33.5 ft	(10.21 m)
Roll Width:	Avg:	3.28 ft	(1.00 m)
Thickness:	Avg:	102 mils	(2.6 mm)
	Min:	98 mils	(2.5 mm)
Selvage Width:	Avg:	3.0 in	(76 mm)
Selvage Surfacing: Polyolefin Release Tape			
Top Surfacing: Sand			
Back Surfacing: Polyolefin Release Film			

Packaging: Rolls are wound onto a compressed paper tube. The rolls are placed upright on pallets cushioned with corrugated cardboard and are adhered with adhesive at the labels. The top of the palleted rolls is covered with Kraft paper. The palleted 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: 72 lb (32.7 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.

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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 (minimum)	98 mils (2.5 mm)	ASTM D5147 section 6	Thickness (minimum)	2.5 mm (98 mils)
Thickness (average)	102 mils (2.6 mm)	ASTM D5147 section 6	Thickness (average)	2.6 mm (102 mils)
[1]Peak Load @ 73.4°F (23°C) (average)	30 lbf/inch (5.3 kN/m)	ASTM D5147 section 7	[1]Peak Load 23°C (73.4°F) (average)	5.3 kN/m (30 lbf/inch)
[1]Peak Load @ 0°F (-18°C) (average)	75 lbf/inch (13.2 kN/m)	ASTM D5147 section 7	[1]Peak Load @ -18°C (0°F) (average)	13.2 kN/m (75 lbf/inch)
[1]Elongation @ Peak Load, 73.4°F (23°C) (average)	3%	ASTM D5147 section 7	[1]Elongation @ Peak Load, 23°C (73.4°F) (average)	3%
[1]Elongation @ Peak Load, 0°F (-18°C) (average)	3%	ASTM D5147 section 7	[1]Elongation @ Peak Load, -18°C (0°F) (average)	3%
[1]Ultimate Elongation @ 73.4°F (23°C) (average)	80%	ASTM D5147 section 7	[1]Ultimate Elongation @ 23°C (73.4°F) (average)	80%
[1]Tear Strength (average)	40 lbf (0.18 kN)	ASTM D5147 section 8	N/A	N/A
Water Absorption (maximum)	1%	ASTM D5147 section 10	N/A	N/A
Dimensional Stability (maximum)	0.1%	ASTM D5147 section 11	Dimensional Stability (maximum)	0.1%
Low Temperature Flexibility (maximum)	-15°F (-26°C)	ASTM D5147 section 12	Low Temperature Flexibility (maximum)	-26°C (-15°F)
Compound Stability (minimum)	250°F (121°C)	ASTM D5147 section 16	Compound Stability (minimum)	121°C (250°F)
Cyclic Fatigue	Paradiene 20 bonded to Paradiene 30 FR with an approved method of attachment, passes ASTM D5849 both as-manufactured and after heat conditioning according to ASTM D5147.			

1. The value reported is the lower of either MD or XD.
2. The High Temperature Stability of the self-adhesive bitumen coating is 212°F (100°C).

The above properties have been validated by PRI and are under continuous follow-up to ensure compliance. The product has been validated to meet ASTM D6163-08, TYPE I, GRADE S.