

PARADIENE 20 TS SA



Commercial Product Data Sheet

Product Description

Paradiene 20 TS SA is a uniquely designed, high performance, self-adhesive, modified bitumen base ply designed for use in homogeneous multi-layer modified bitumen roof membrane systems. Paradiene 20 TS SA consists of a lightweight random fibrous glass mat impregnated and coated with an elastomeric styrene-butadiene-styrene (SBS) modified bitumen. The unique back surface design consists of factory applied, self-adhesive stripes combined with a proprietary acrylic coating between the stripes, which provides for uniform bonding of 50% of the total surface area of the sheet.

Paradiene 20 TS 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 TS SA is the first ply of all semi-adhered Siplast Paradiene 20 TS SA/Paradiene 30 TG Systems. It is lapped 3 inches 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 wide strip of Paradiene 20 TG. Paradiene 20 TS SA is designed for direct application to approved insulations and roof boards, primed structural concrete decks, and other approved substrates. Paradiene 20 TS SA can only be used as a self-adhered base ply in multi-layer roof systems with a torch applied finish layer of Paradiene TG, Veral, or Parafor. All laps of the Paradiene 20 TS SA must be heat welded when the Paradiene TG or Parafor TG over-layer is not installed during the same day's application. Contact Siplast for specific approval on other product uses.

Product Approvals

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

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

Paradiene 20 TS SA meets or exceeds the requirements for 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.

Siplast Roof Systems have also received the approval of many regional and local code authorities. Contact Siplast for more information.

COMMERCIAL PRODUCT INFORMATION

Unit:	Roll		
Coverage:	1.0 Square	(9.3 m ²)	
Coverage Weight Per Square:	Min:	76 lb	(3.7 kg/m ²)
Roll Length:	Min:	33.5 ft	(10.21 m)
Roll Width:	Avg:	3.28 ft	(1.00 m)
Thickness:*	Avg:	98 mils	(2.5 mm)
	Min:	94 mils	(2.4 mm)
Selvage Width:	Avg:	3 in	(76 mm)
Selvage Surfacing: Polyolefin Release Tape			
Top Surfacing: Silica Parting Agent			

Back Surfacing: Adhesive stripes, acrylic coating between the stripes. Split polyolefin release film.

A laying line is placed 3 in (76 mm) from each edge of the material. The laying line for this material is white.

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 palletted rolls is covered with 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: 76 lb (34.5 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.

* Thickness measurement does not include the thickness of the adhesive stripes.

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

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PARADIENE 20 TS SA

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)	94 mils (2.4 mm)	ASTM D5147 section 6	Thickness (minimum)	2.4 mm (94 mils)
Thickness (average)	98 mils (2.5 mm)	ASTM D5147 section 6	Thickness (average)	2.5 mm (98 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)	70 lbf/inch (12.3 kN/m)	ASTM D5147 section 7	¹ Peak Load @ -18°C (0°F) (average)	12.3 kN/m (70 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)	70%	ASTM D5147 section 7	¹ Ultimate Elongation @ 23°C (73.4°F) (average)	70%
¹ Tear Strength (average)	40 lbf (0.18 kN)	ASTM D5147 section 8	N/A	NA
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)
Coating Thickness - Back Surface	≥ 40 mils (1 mm)	ASTM D5147 section 17	Coating Thickness - Back Surface	1 mm (≥ 40 mils)
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. Thickness measurement does not include the thickness of the self-adhesive stripes or release film.
2. The value reported is the lower of either MD or XD.
3. 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.