

# PARADIENE 20



## Commercial Product Data Sheet

### Product Description

Paradiene 20 is a high performance modified bitumen base ply designed for use in homogeneous multi-layer modified bitumen roof membrane systems. Paradiene 20 consists of a lightweight random fibrous glass mat impregnated and coated with high quality styrene-butadiene-styrene (SBS) modified bitumen.

Paradiene 20 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 is the first ply of all standard Siplast Paradiene 20/30 Systems, and is lapped 3 inches (7.6 cm) side and end. Paradiene 20 can be applied in approved Type III or Type IV asphalt, PA-1000 Polymer Asphalt, Siplast PA-311 Adhesives, or SFT Adhesive. 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 is classified by Underwriters Laboratories for use in cULus Classified Siplast Paradiene 20/30, Paradiene 20/30 FR, and Paradiene 20/20 PR Roof Systems. Siplast Paradiene 20/30 FR has been classified by Underwriters Laboratories as a Class A roofing system over non-combustible, insulated non-combustible, and insulated combustible decks, and as a Class B roofing system over combustible decks. Siplast Paradiene 20/20 PR has been classified by Underwriters Laboratories as a Class A roofing system over non-combustible and insulated non-combustible decks when surfaced with roofing gravel. Siplast Paradiene 20/30 has been classified as a Class C roofing system over combustible, non-combustible, and insulated combustible decks.

Paradiene 20 meets or exceeds the requirements of ASTM D6163 Type I, Grade S, and CSA A123.23-15 Type A, Grade 2 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:                   | 1.5 Squares          | (13.9 m <sup>2</sup> ) |                          |
| Coverage Weight Per Square: | Min:                 | 62 lb                  | (3.0 kg/m <sup>2</sup> ) |
| Roll Length:                | Min:                 | 50 ft                  | (15.24 m)                |
| Roll Width:                 | Avg:                 | 3.28 ft                | (1.00 m)                 |
| Thickness:                  | Avg:                 | 91 mils                | (2.3 mm)                 |
|                             | Min:                 | 87 mils                | (2.2 mm)                 |
| Selvage Width:              | N/A                  |                        |                          |
| Selvage Surfacing:          | N/A                  |                        |                          |
| Top Surfacing:              | Silica Parting Agent |                        |                          |
| Back Surfacing:             | Silica Parting Agent |                        |                          |

Lines: Two laying lines are placed 3 in (7.6 cm) and 4 in (10.2 cm) from each edge of the material. The line color 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 palletized rolls is covered with Kraft paper. The palletized 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: 93 lb (42.2 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).*

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## Physical and Mechanical Properties

| UNITED STATES TEST STANDARDS                                 |                                                                                                                                                                           |                          | CANADA TEST STANDARDS                                        |                                               |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------|-----------------------------------------------|
| Property<br>(as Manufactured)                                | Values/Units                                                                                                                                                              | Test Method              | Property<br>(as manufactured)                                | Test Method<br>CSA A123.23-15<br>Values/Units |
| Thickness (minimum)                                          | 87 mils (2.2 mm)                                                                                                                                                          | ASTM D5147<br>section 6  | Thickness (minimum)                                          | 2.2 mm (87 mils)                              |
| Thickness (average)                                          | 91 mils (2.3 mm)                                                                                                                                                          | ASTM D5147<br>section 6  | Thickness (average)                                          | 2.3 mm (91 mils)                              |
| <sup>1</sup> Peak Load @ 73.4°F (23°C) (average)             | 30 lbf/inch (5.3 kN/m)                                                                                                                                                    | ASTM D5147<br>section 7  | <sup>1</sup> Peak Load 23°C (73.4°F) (average)               | 5.3 kN/m (30 lbf/inch)                        |
| <sup>1</sup> Peak Load @ 0°F (-18°C) (average)               | 70 lbf/inch (12.3 kN/m)                                                                                                                                                   | ASTM D5147<br>section 7  | <sup>1</sup> Peak Load @ -18°C (0°F) (average)               | 12.3 kN/m (70 lbf/inch)                       |
| <sup>1</sup> Elongation @ Peak Load, 73.4°F (23°C) (average) | 3%                                                                                                                                                                        | ASTM D5147<br>section 7  | <sup>1</sup> Elongation @ Peak Load, 23°C (73.4°F) (average) | 3%                                            |
| <sup>1</sup> Elongation @ Peak Load, 0°F (-18°C) (average)   | 3%                                                                                                                                                                        | ASTM D5147<br>section 7  | <sup>1</sup> Elongation @ Peak Load, -18°C (0°F) (average)   | 3%                                            |
| <sup>1</sup> Ultimate Elongation @ 73.4°F (23°C) (average)   | 55%                                                                                                                                                                       | ASTM D5147<br>section 7  | <sup>1</sup> Ultimate Elongation @ 23°C (73.4°F) (average)   | 55%                                           |
| <sup>1</sup> Tear Strength (average)                         | 40 lbf (0.18 kN)                                                                                                                                                          | ASTM D5147<br>section 8  | N/A                                                          | N/A                                           |
| Water Absorption (maximum)                                   | 1%                                                                                                                                                                        | ASTM D5147<br>section 10 | N/A                                                          | N/A                                           |
| Dimensional Stability (maximum)                              | 0.1%                                                                                                                                                                      | ASTM D5147<br>section 11 | Dimensional Stability (maximum)                              | 0.1%                                          |
| Low Temperature Flexibility (maximum)                        | -15°F (-26°C)                                                                                                                                                             | ASTM D5147<br>section 12 | Low Temperature Flexibility (maximum)                        | -26°C (-15°F)                                 |
| Compound Stability (minimum)                                 | 250°F (121°C)                                                                                                                                                             | ASTM D5147<br>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.



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.