

## Product Technical Information

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# PARADIENE S R4

### Product Description and uses: Paradiene S R4

is a high performance reinforced SBS elastomeric bitumen membrane for waterproofing works used as base layer for multi-layers systems in not accessible roofs, technical roofs or roofs under heavy protection. This product is designed for both new works and refurbishment works on approved substrates.

**Product Approvals: Paradiene S R4** is approved by CSTB (Paradiene S Document Technique d'Application) and BBA (Paradiene Agreement Certificate) for use in Siplast insulated steel roof deck constructions and insulated and non-insulated concrete roof deck constructions, constructions and insulated and non-insulated wooden roof deck constructions. Paradiene S R4 is a fully or partially bonded, two layer, built-up roof waterproofing system on flat and pitched roofs or a loose-laid and ballasted, two layer, roof waterproofing system on flat roofs.

**ASTM Classification: Paradiene S R4** meets or exceeds the requirements of ASTM D 6162 Type I, Grade S, for SBS-modified bituminous sheet materials using polyester reinforcements

**FM Approval: Paradiene S R4** is approved by FM Approvals (FM Standard 4470) for use in Siplast Class 1 insulated steel roof deck constructions, subject to FM conditions and limitations.



### Composition

Top surfacing: Silica Parting Agent or polyethylene film

Selvage surfacing: Silica Parting Agent or polyethylene film

Selvage Protection: -

Bitumen compound: SBS (Styrene-Butadiene-Styrene) elastomeric bitumen

Reinforcement:

Polyester reinforcement 180 gr/m<sup>2</sup>

Back surfacing: Silica Parting Agent or polyethylene film

### Dimensions

Value	Nominal
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Thickness on longitudinal selvedge (mm)	2.6
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Thickness main surface (mm)	2.6
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Roll length and width (m)	10 x 1
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Weight / m <sup>2</sup> (kg/m <sup>2</sup> )	3.33
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Weight / roll (kg)	33.6
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### Packaging

Rolls quantity per truck pallet	28
Rolls quantity per container pallet	30
Rolls quantity per wooden box	28

## ISO 9001 REFERENCE DOCUMENT

Our company has been awarded the ISO 9001 certificate for all its establishments in France.

*Our company reserves the right to modify its composition as a result of technological and experimental improvements.*

To obtain the up-date technical data sheet, please contact Siplast



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## Paradiene S R4

### Physical and Mechanical Properties

**According with EN 13707**

Property (as Manufactured)	Test Method	Units	Nominal values
Tensile strength at max	EN 12 311-1	N/50mm	700 x 550
Elongation at max	EN 12 311-1	%	40 x 45
Nail tearing resistance	EN 12 310-1	N	300 x 320
Cold temperature flexibility	EN 1109	°C	≤ - 20
Heat flow test	EN 1110	°C	≥ 100
Dimensional stability	EN 1107-1	%	≤ - 0.5
Shear joint resistance (side lap x head lap)	EN 12317-1	N/50mm	500 x 600
Impact resistance (soft substrate)	EN 12691	mm	1500
Static puncture resistance (soft substrate)	EN 12370 A	Kg	20
Waterproofing	EN 1928	-	Pass

**According with ASTM D 5147**

Property (as Manufactured)	Test Method	Units	Nominal values
Tensile strength at max at 23°C (73°F)	ASTM D 5147 section 6	kN/m	13.5 x 10.8
Elongation at max at 23°C (73°F)	ASTM D 5147 section 6	%	54.0 x 60.7
Cold temperature flexibility	ASTM D 5147 section 11	°C	≤ - 20
Heat flow test	ASTM D 5147 section 15	°C	≥ 100
Dimensional stability	ASTM D 5147 section 10	%	≤ - 0.5

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**Other informations**

Values	Where 2 values for given characteristics are shown, the first is for longitudinal direction and the second is for the cross direction.
Tolerances	The average values derived from standard tests and are subject to the usual production variations. Some slight variations can be noticed as the values are based on the average values obtained from several plants.
Modification(s)	Our company reserves the right to modify its composition as a result of technologic and experiments improvements. This product data sheet supersedes the previous edition, to obtain the up-date technical data sheet, please contact our technical department.
Hazardous classification	It is not classified as dangerous according to the international regulation (ADR, RID, IATA, et RTMDR)
Divers	This product is only a product technical data sheet, regarding each waterproofing design, please, consult the concerned technical agreement and in case of doubt contact our technical department.
Storage	This product is packaged in rolls set up vertically on pallet or wooden box. It must be stored vertically under shelter, away from heat sources.

**Generalities**

Application	Paradiene SR4 is used in combination with other Siplast membranes in minimum 2 layer build up system. Vertical upstands are always reinforced with a Parequerre or Paradiene 35 SR4 base layer along angles + Paradien S or Parafor solo GS.
Overlaps	Side lap: 60mm minimum Head lap: 60 mm minimum. In case of mechanical fixation along head laps the overlapping is 100mm minimum.