

# TECHNICAL DATASHEET

## GS TPO RF BG D

### SANDWICHED TPO MEMBRANE

**GreenShield™ TPO RF BG (D) Membrane** is a high performance, heat weldable, sandwiched fleece backed thermoplastic polyolefin (TPO) sheet, manufactured and supplied in thickness of 1.2 mm and 1.5 mm, designed for waterproofing roofs of new and existing buildings.

Based on advanced polymer chemistry, the membrane has excellent chemical resistance, sustaining cycles of hot, cold, wet and dry environmental conditions, remaining flexible over years, maintaining its integrity and continuing to provide protection from water seepage.

High mechanical properties of the membrane ensure superior puncture resistance, breaking and tearing strength, while enabling excellent heat weld for fusion along the edges.

The membrane is designed for adhesion to screed, PCC, RCC, cementitious and other adhesives for easy application over flat roofs and parapet walls, creating a monolithic barrier system. Tiles, screed can be adhered over the membrane.



## Features & Benefits

- ◇ Supplied in pre-manufactured standard thickness. No thickness variation unlike liquid applied systems.
- ◇ Outstanding puncture resistance, high breaking and tearing strength, with very high peel strength of seam joints and heat welds
- ◇ Chlorine free, plasticizer free, phthalate free. Environmentally friendly and safe for humans
- ◇ Exceptional resistance to moisture, bacteria, chemical, and acid/bases corrosion
- ◇ Resistance to root penetration, suitable for green roofs and below ground applications.
- ◇ Continuous serviceability from -30°C to 100°C - without cracking, tearing or brittleness failure

## Application Areas

- ◇ Flat Roofs
  - ◇ Residential Buildings & Homes
  - ◇ Commercial Office Buildings
  - ◇ Malls, Hospitals, Schools
- ◇ Green Roofs, Podiums & Balconies
- ◇ Podiums & Basements

## Packing, Storage & Coverage

ROLL DETAILS	Thickness (mm)	1.2	1.2	1.5	1.5
	Width (mtr)	1.6	2.0	1.6	2.0
	Length (mtr)	20	20	20	20
	Sq.mts (mtr <sup>2</sup> )	32	40	32	40
	Weight (kgs)	38	48	47	58
	STORAGE	Store membranes in dry and clean conditions and in their original, closed wrapping away from sources of chemical contamination, damage, ignition sources and open flame. Shelf life is beyond 5 years. Exercise caution when lifting, moving, transporting, storage and handling to avoid puncture and physical damage.			
COVERAGE	The dimensions of the membrane are calculated to cover the substrate, including seam overlaps. <b>Standard Seams:</b> 75 mm <b>Seams with mechanical anchoring:</b> 150 mm <b>Upstands:</b> additional length of 150 mm				



**GreenShield**

Heatshielding & Waterproofing Your Roof

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PROPERTY	GS TPO 1.2 RF BG D	GS TPO 1.5 RF BG D
Nominal Thickness   mm; ASTM D751	1.2 ± 10%	1.5 ± 10%
Typical Weight   Kg/m <sup>2</sup>	1.18 ± 10%	1.45 ± 10%
Breaking Strength   LBF; MD/TD; ASTM D 751 Grab Method	100 Min 125 Typical	110 Min 130 Typical
Elongation at Break   %, MD/TD; ASTM D 751	50 Min 70 Typical	50 Min 70 Typical
Tearing Strength   LBF; MD/TD; ASTM D 751 Procedure B	25 Min 30 Typical	25 Min 30 Typical
Brittleness Point   °C; ASTM D 2137	-40°C	-40°C
Linear Dimensional Change   %; 6hrs @ 70°C; ASTM D 1204	< 1%	< 1%
Water Absorption   %; 66 hrs @ 70°C TOP; ASTM D471	< 3.0%	< 3.0%
Factory Seam Strength   LBF; ASTM D 751 Grab Method	66 Min 80 Typical	66 Min 80 Typical
Water Vapour Permeance   Perms; ASTM E96, Procedure B	0.10 Max	0.10 Max
Puncture Resistance   LBF; ASTM D751	57	70
Field Seam Strength   LBF; ASTM D 751 Grab Method	40 Min 60 Typical	40 Min 60 Typical

**Note & Disclaimer:** For latest updates and additional info, please consult our website at [www.greenshield.co.in](http://www.greenshield.co.in). Testing results and/or copies of Approval Documents for above mentioned membranes are available on request.

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is user responsibility to ensure that product is used and handled correctly and in accordance with applicable standards and recommendations and only for the intended purpose. We reserve the right to update information without prior notice to reflect ongoing research and development program. Country specific recommendations, considering local standards, practice codes, building regulations and industry guidelines, may effect installation recommendations. The supply of our products and services is subject to terms, warranties and exclusions available to you on request.