



Technical Specification of TPO-TF-S-12

Tianda TPO is a leading player in the field of polymer waterproofing membranes, domestically and globally. As a specialized manufacturer of TPO waterproofing membranes, we cater to the rising demand for building insulation in roof waterproofing while ensuring leak prevention and extended durability.

Our company stands out as a new-age enterprise, integrating research, development, production, sales, and technical services, with a focus on polymer waterproofing materials. Our flagship products include thermoplastic polyolefin (TPO) waterproofing membranes, PVC waterproofing membranes, HDPE waterproofing membranes, and high elastic waterproofing membranes. Committed to uniform quality standards, our products hold multiple certifications, underscoring our dedication to building a new era of energy-efficient and eco-friendly waterproofing solutions.

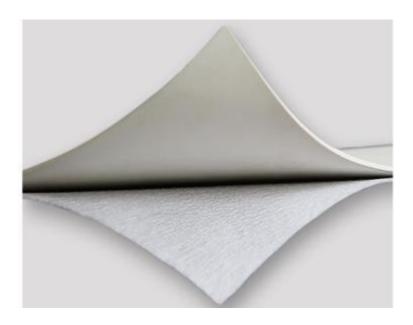
With over 14 years of pioneering experience in steel structure roofs, our products have been extensively used in green waterproofing projects across automotive factory buildings, industrial facilities, civil structures, public buildings, garage roofs, civil defense engineering, subway stations, comprehensive pipe galleries, and more.

Our TPO waterproofing materials meet the stringent requirements of sustainable building materials and energy efficiency regulations, both domestically and internationally. Tianda specializes in adapting globally proven waterproofing and insulation systems to local needs, thereby enhancing construction quality and efficiency across all roof waterproofing endeavors.





PRODUCT DESCRIPTION



The TPO (Thermoplastic Polyolefin) membrane is a rapidly expanding roofing system globally. Its consistent superiority over other materials lies in its simplicity of installation, durability, top-notch performance, competitive pricing, and environmental friendliness. Furthermore, it stands alone as the only system that offers simultaneous protection from water and heat, making it a preferred choice in roofing solutions.





APPLICATION AREAS



A:Roofing waterproofing membrane –suitable for low slope applications (new construction or renovation)

- Factory shed (prefabricated building) metal roof
- Metro station
- Airport
- TRAIN STATION
- Bus station
- Shopping mall
- Hospital
- Bus station
- Schools and colleges
- Resorts and sanatoriums with pitched roofs

B: Green roof and podium

- Apartment podium floor
- balcony
- open terrace
- roof garden
- sloping roof

C: Building underground waterproofing system





Basement, ground floor, underground garage, tunnel gallery

PRODUCT FEATURES

- Environmentally friendly, chlorine-free and pollution-free.
- Excellent aging resistance.
- High breaking strength, high tear strength, impact resistance and puncture resistance. Excellent wind resistance.
- Resistant to low temperature, no cracks when bent at -40℃.
- Smooth surface, high reflectivity, energy-saving and pollution-resistant.
- Hot air welding is safe, reliable, strong and durable.
- Resistant to the growth of algae, mold and other microorganisms, and resistant to heat aging.
- Strong acid and alkali corrosion resistance, suitable for areas with high acid and alkali.
 No open flame construction, high safety.

SPECIFICATION

Nominal length: 20 m.Nominal width: 2.0 m.Thickness: 1.2 mm

Weight: ±58 kg







DATABASE

产品名称: Product Name:	高分子复合防水卷材 TPO waterproof membrane			规格型号 Model	1.2mm FS2(2*25m)
序号 Serial number	检测项目 Test items			标准要求 Standard Specification	检测结果 Test Data
1	厚度 Thickness			1.2* (95%-105%) mm	1.23mm
2	拉伸强度 Tensile Strength	常温 Normal temperature 23℃	纵向Vertical 横向Horizontal	≥60N/cm ≥60N/cm	126cm 155cm
		高温 High temperature 60℃	纵向Vertical 横向Horizontal	≥30N/cm ≥30N/cm	82cm 106cm
3	拉伸伸长率 Elongation at Break	常温 Normal temperature 23℃		≥400% ≥400%	430% 458%
		高温 High temperature 60℃	11.00	≥ 400% ≥ 300% ≥ 300%	352% 332%
4	撕裂强度 Tear Resistance	纵向Vertical 横向Horizontal		≥500 ≥50N ≥50N	94N 103N
5	不透水性 Water Absorption	0.3MPa,30min		≤ 0.1%	≤ 0.1%
6	低温弯折 Low Temperature Flexibility	≤ -40° C		No cracks	No cracks
7	加热伸缩量 Dimensional Stability	80°C, 168h	纵向Vertical 横向Horizontal	≤ 4mm ≤ 4mm	0.6mm 0.5mm
8	抗紫外线 UV Resistance		The state of the s	Not applicable (non- exposed)	Not applicable (non- exposed)
9	接缝强度 Seam Strength			≥ 90% of membrane strength	≥ 90% of membrane strength
10	抗穿刺性 Puncture Resistance			High	High
11	阻燃性能 Fire Resistance				EN 13501-1 Fire Class E