

Technical Specification of TPO-TF-S-15

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.

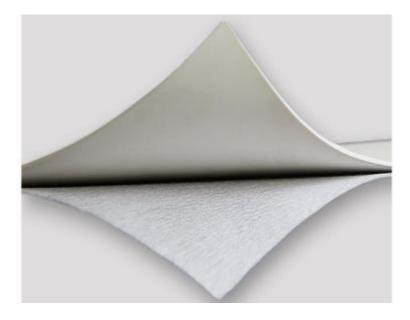
With over 14 years of pioneering experience in steel structure roofs, our products have been extensively used in green waterproofing projects across automotive factory buildings, industrial facilities, civil structures, public buildings, garage roofs, civil defense engineering, subway stations, comprehensive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

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• 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°C.
- 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: 1.5 mm
- Weight: ±62 kg



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DATABASE

产品名称:	高分子复合防水卷材			规格型号	1.5mm FS2(2*25m)
Product Name:		TPO waterproof	membrane	Model	
序号		检测项目		标准要求	检测结果
Serial number		Test ite		Standard Specification	Test Data
1		厚度 Thick	mess	1.5* (95%-105%) mm	1.52mm
2	拉伸强度 Tensile Strength	常温 Normal temperature	纵向Vertical	≥60N/cm	145cm
		23°C	横向Horizontal	≥60N/cm	176cm
		高温 High temperature 60℃	纵向Vertical	≥30N/cm	76cm
			横向Horizontal	≥30N/cm	111cm
3	拉伸伸长率 Elongation at Break	常温 Normal temperature	纵向Vertical	≥400%	428%
		23℃ 高温 High temperature	横向Horizontal	≥400%	470%
			纵向Vertical	≥300%	326%
		- 60°C	横向Horizontal	≥300%	360%
	撕裂强度 Tear		问Vertical	≥50N	101N
4		横向Horizontal		≥50N	112N
5	不透水性	0.3MPa,30min			1927 AL 1943
	Water			≤ 0.1%	≤ 0.1%
	Absorption			1111-5411-5411	
5	低温弯折				
6	(2012) (Suppl) (Suppl)	≤ -40° C		No cracks	No cracks
	Low				
	Temperature				
	Flexibility				
7	加热伸缩量	80℃,168h	纵向Vertical	≪4mm	0. 7mm
	Dimensional	000,1001	横向Horizontal	≪4mm	0. 6mm
8	抗紫外线 UV Resistance			Not applicable (non- exposed)	Not applicable (non-exposed)
9	接缝强度 Seam Strength			≥ 90% of membrane strength	\geqslant 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
12	拉伸强度保持率 Tensile strength retention	纵向Vertical		≥80%	95%
		横向Horizontal		≥80%	99%
	拉断伸长率保持 率	纵向Vertical		≥70%	99%
	Elongation at break retention rate	横向Horizontal		≥70%	88%

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