

# **Technical Specification of TPO-TF-S-18**

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.

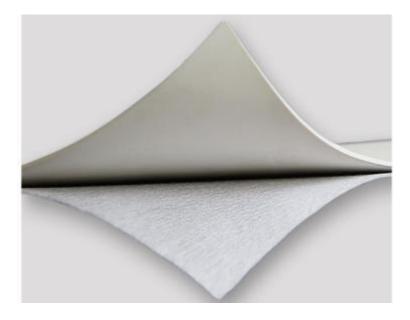
With over 14 years of pioneering experience in steel structure roofs, our products have been extensively used in green waterproofing projects across automotive factory buildings, industrial facilities, civil structures, public buildings, garage roofs, civil defense engineering, subway stations, comprehensive 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: 1.8 mm
- Weight: ±68 kg



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### DATABASE

产品名称:	高分子复合防水卷材			规格型号	1.8mm FS2(2*20m)
Product Name:	TPO waterproof membrane			Model	
序号	检测项目			标准要求	检测结果
Serial number	Test items			Standard Specification	Test Data
1	厚度 Thickness			1.8* (95%-105%) mm	1.83mm
2	拉伸强度 Tensile Strength	常温 Normal	纵向Vertical	≥60N/cm	165cm
		temperature	横向Horizontal	≥60N/cm	185cm
		高温 High	纵向Vertical	≥30N/cm	94cm
		temperature	横向Horizontal	≥30N/cm	116cm
3	拉伸伸长率 Elongation at Break	常温 Normal	纵向Vertical	≥400%	446%
		temperature	横向Horizontal	≥400%	492%
		高温 High	纵向Vertical	≥300%	328%
		temperature	横向Horizontal	≥300%	362%
4	撕裂强度      纵向Vertical		≥50N	108N	
	Tear Resistance	横向Horizontal		≥50N	124N
55.03	不透水性	0.3MPa,30min		≤ 0.1%	≤ 0.1%
5	Water Absorption				
6	低温弯折	≤ -40° C			
	Low Temperature			No cracks	No cracks
	Flexibility				
7	加热伸缩量	0	纵向Vertical	≪4nn	0. 4mm
	Dimensional	80°C,168h	横向Horizontal	≤4nn	0. 5mm
8	抗紫外线		Diff June 1 Bourout	Not applicable (non-	Not applicable
	UV Resistance			exposed)	(non-exposed)
9	接缝强度			≥ 90% of membrane	≥ 90% of membran
	Seam Strength			strength	strength
10	抗穿刺性			50100500	201011201
	Puncture			High High	High
	Resistance				111.811
11	I I I I I I I I I I I I I I I I I I I				EN 13501-1 Fire
	Fire Resistance				Class E
12	拉伸强度保持率	纵向Vertical		≥80%	90%
	卫伸强反体好举 Tensile strength	横向Horizontal		≥80%	10.12.02.01
					101%
	拉断伸长率保持率	纵向Vertical		≥70%	86%
	Elongation at	横向Horizontal		≥70%	88%
	break retention (#Phorizontal				

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