TIANDA GROUP

Tianda Waterproof Building Materials Co., Ltd.

Building a leading brand of metal roof waterproofing (TPO)

Company

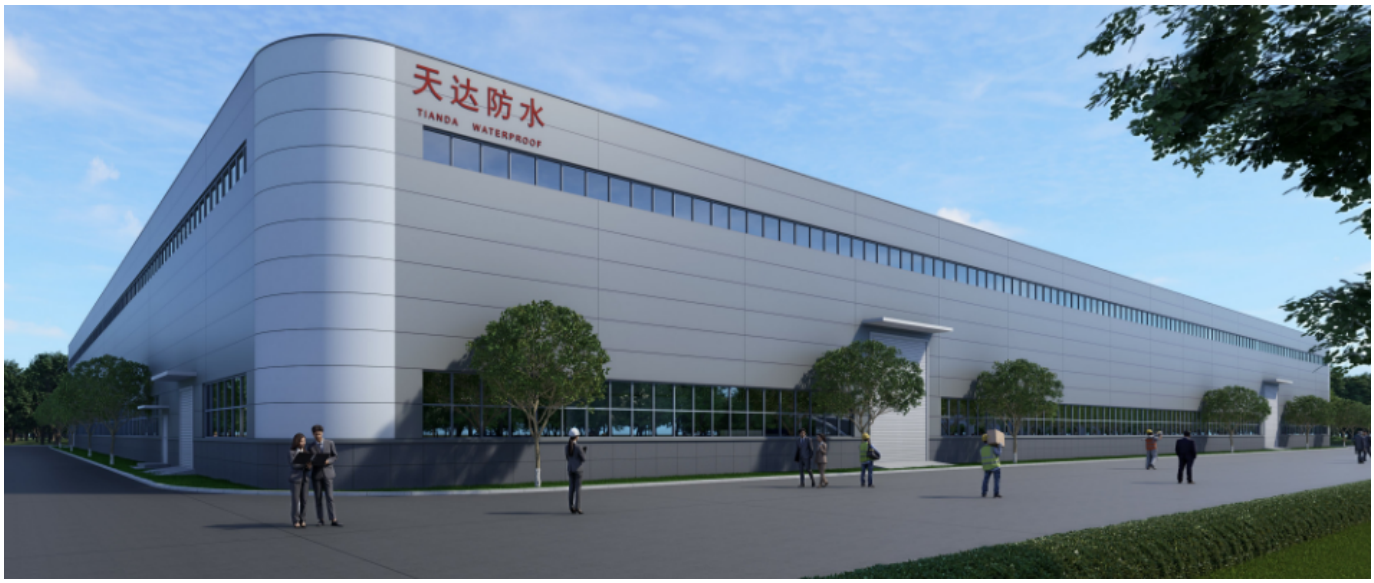
Tianda Group

Tianda Group holds controlling stakes in three subsidiaries: Tianda Waterproof Building Materials Co., Ltd., Tianda Hexahedron Building Technology Co., Ltd., and Henna Tiandaji Polymer Material Technology Co., Ltd. It is a professional enterprise engaged in the polymer waterproof membrane industry, honored as a National High-tech Enterprise, Specialized, Refined, Unique and Innovative Enterprise, and serves as the Vice Chairman Unit of Henan Building Waterproofing Association.

In 2019, the Group participated in the national Beijing-Tianjin-Hebei industrial transfer project and invested in constructing a waterproof building materials production base in Henan Province.
As an energy-saving and environment-friendly new waterproofing conglomerate integrating R&D, production, sales, technical services and engineering construction, Tianda Holding's main products cover Thermoplastic Polyolefin (TPO) waterproof membrane, TPO integrated roof tile, TPO waterproof and thermal insulation integrated board, Polyvinyl Chloride (PVC) waterproof membrane, TPO/PVC photovoltaic support, and high-elastic acrylic waterproof coating for metal roofs.

All products have obtained multiple quality certifications and green building material certifications. With profound technical accumulation and leading advantages in the field of metal roof waterproofing, Tianda Holding is widely recognized as a technical benchmark and core solution provider in China's metal roof waterproofing industry. Its high-performance special waterproof materials and systems for metal roofs are widely applied in large industrial plants, airport terminals, stadiums and other complex metal roof projects.

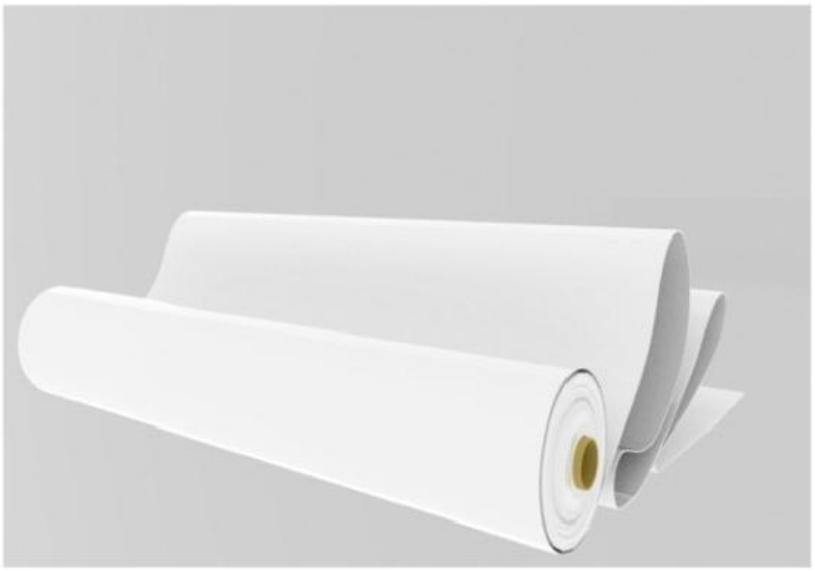
The Group will continue to focus on cutting-edge technologies and high-end products of building waterproof materials at home and abroad. With advanced concepts, leading technology and a responsible attitude, it commits to providing high-quality waterproof materials and professional application solutions for the construction industry.



Corporate Culture

Corporate Vision: To become the leading brand of metal roof waterproofing (TPO) in China
Corporate Mission: To prevent steel structure buildings from leaking water again
Core Values: Customer-Centric-Integrity and Trustworthiness; People-Oriented-Unity and Col laboration

About TPO



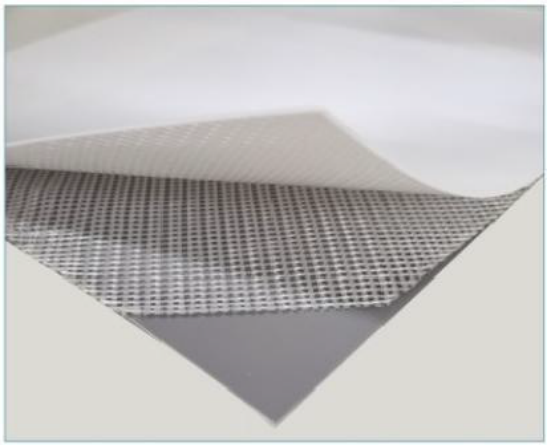
TPO (thermoplastic polyolefin) is primarily composed of carbon and hydrogen atoms, containing no plasticizers or chlorine components. It belongs to the category of rubber-plastic blends, combining the weldability of plastics with the aging resistance, high-temperature resistance, and low-temperature resistance of rubber.

TPO highlight features

1. Environmentally friendly, chlorine-free, and pollution-free.
2. Excellent aging resistance, with artificial accelerated aging tested for 10,000 hours.
3. High fracture strength, high tear strength, impact resistance, and puncture resistance.
4. Outstanding wind lifting resistance.
5. Low-temperature resistant, with no cracking upon bending at-50°C.
6. Smooth surface, high reflectivity, energy-efficient, and stain resistant.
7. Safe and reliable hot air welding, ensuring robust durability.
8. Resistant to microbial growth (e.g., algae, mold) and heat aging.
9. Strong resistance to acid and alkali corrosion, suitable for high- acid and high-alkali environments.
10. No open flame required during installation, ensuring high safety.

Products

01 Reinforced P-type TPO Membrane



·Definition of Terms:
A thermoplastic polyolefin (TPO) waterproof membrane reinforced with polyester or fiberglass mesh in the middle of the membrane.

·Operative Norm:
Thermoplastic Polyolefin (TPO) Waterproof Membrane
GB 27789-2011

·Size of Product:
Wide: 2.0m
Thickness: 1.2mm, 1.5mm, 1.8mm, 2.0mm
Length: 20m per roll
Color: White or customizable as needed

·Model Application:
Single layer roof waterproofing system, metal roof waterproofing system, concrete roof waterproofing system

·Product Features:
1. High mechanical strength.
2. Excellent impact resistance.
3. Outstanding long-term performance.

02 Fabric Backing L-type TPO Membrane

·Definition of Terms:
A thermoplastic polyolefin (TPO) waterproof membrane compounded with polyester non-woven fabric on the lower surface of membrane.

·Operative Norm:
Thermoplastic Polyolefin (TPO) Waterproof Membrane
GB 27789-2011

·Size of Product:
Wide: 2.0m
Thickness: 1.2mm, 1.5mm, 1.8mm, 2.0mm
Length: 20m per roll
Color: White or customizable as needed

·Model Application:
Renovation of roof waterproofing system, single-layer roof waterproofing system, and concrete roof waterproofing system

·Product Features:
1. Excellent mechanical dimensional stability.
2. Suitablefor fully bonded roofs.
3. Outstanding long-term performance.

03 Homogeneous H-type TPO Membrane

·Definition of Terms:
A thermoplastic polyolefin (TPO) waterproof membrane without reinforcement or backing material.

·Operative Norm:
Thermoplastic Polyolefin (TPO) Waterproof Membrane
GB 27789-2011

·Size of Product:
Wide: 2.0m, 1.0m, Customized width
Thickness: 1.2mm, 1.5mm, 1.8mm, 2.0mm
Length: 20m per roll, 400m per roll, 600m per roll
Color: White or customizable as needed

·Model Application:
Detail treatment of TPO roof waterproofing system, Fusion tiles matching products.

·Product Features:
1. Soft and well formed construction of detailed nodes.
2. Integrated construction with fusion tiles, efficient and convenient.
3. Outstanding long-term performance.

04 Self-adhesive H-type TPO Membrane

·Definition of Terms:
A thermoplastic polyolefin (TPO) waterproof membrane with pressure-sensitive adhesive or butyl adhesive self-adhesive layer and isolation film on the bottom surface of membrane.

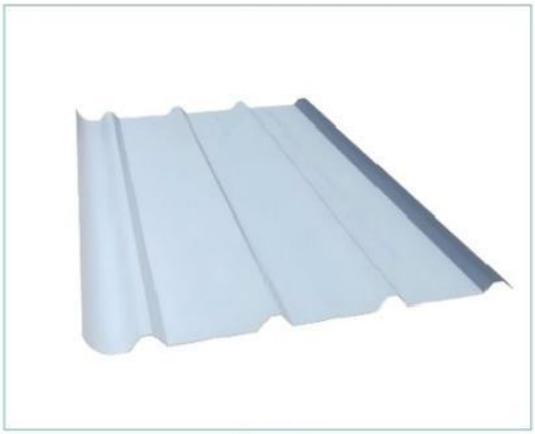
·Operative Norm:
Thermoplastic Polyolefin (TPO) Waterproof Membrane
GB 27789-2011

·Size of Product:
Wide: 2.0m
Thickness: 1.2mm, 1.5mm, 1.6mm, 1.8mm, 2.0mm
Length: 20m per roll
Color: White or customizable as needed

·Model Application:
Metal roof waterproofing system, concrete roof waterproofing system, building underground waterproofing system

·Product Features:
1. Excellent mechanical dimensional stability.
2. Suitablefor fully bonded roofs.
3. Outstanding long-term performance.

05 TPO Fusion Tile



·Definition of Terms:
This multifunctional roofing material is fabricated by high-temperature fusion of thermoplastic polyolefin (TPO) with metal composite steel plates, combining waterproofing, structural strength, and decorative properties.

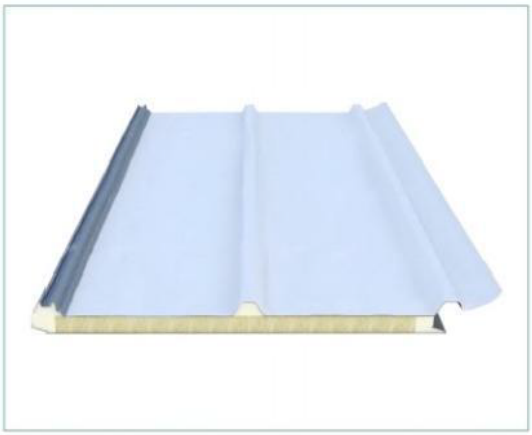
·Operative Norm:
Thermoplastic Polyolefin (TPO) Waterproof Membrane GB 27789-2011 (Supplementary Requirements for Composite Materials)

·Size of Product:
Pattern: YX30-280-840 (mechanically fixed, lap welded)
YX65-470 (360-bite,uprightedgelocking)
Thickness: 2.4mm (1.8mm TPO + 0.6mm steel plate)
2.1mm (1.5mm TPO + 0.6mm steel plate)
1.8mm (1.2mm TPO + 0.6mm steel plate)
Color: White or customizable as needed

·Model Application:
Lightweight roofing system for industrial buildings

·Product Features:
1. High mechanical strength.
2. Excellent impact resistance.
3. Outstanding long-term performance.

06 TPO Waterproof and Insulation Integrated Board



·Definition of Terms:
This multifunctional integrated panel is fabricated by combinbing thermoplastic polyolerin (TPO) waterproof membranes with metal sandwich panels using advanced manufacturing processes, delivering combined performance in waterproofing, structural strength, and thermal insulation.

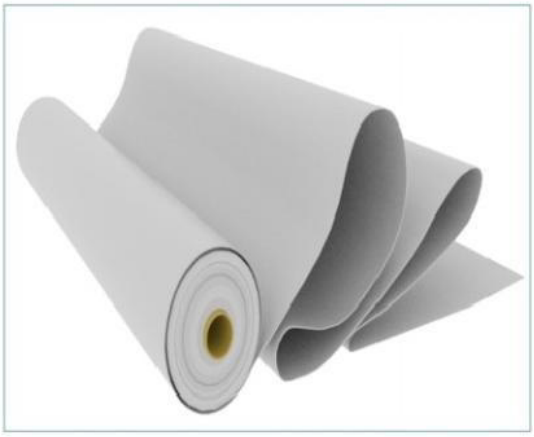
·Size of Product:
Total thickness: 40mm, 50mm, 60mm, 75mm, 100mm
Length: Customized according to project requirements

·Model Application:
Industrial factory roof systems (integrated waterproofing and insulation construction), cold chain logistics warehouse roofs, energysaving renovation projects for public buildings, prefabricated building integrated roof systems

·Product Features:
1. Function integration
2. Structurally stable
3. High efficiency and energy saving
4. Environmentally friendly and flame retardant
5. Reliable waterproof

07 Polyvinyl Chloride (PVC) Membrane

·Definition of Terms:
PVC waterproof membrane sareprimarily manufactured from PVC resin, with the addition of chemical additives such as plasticizers, stabilizers, anti-agingagents,and fillers.The production processing volves kneading, mixing, extrusion,or calendering. It includes non composite layer membrane, fiber single-sided composite membrane and fabric reinforced membrane.



·Operative Norm:
Polyvinyl Chloride (PVC) Waterproof Membrane GB12952-2011

·Size of Product:
Wide: 2.0m
Model: P, H, L, PL, G, GL
Thickness: 1.2mm, 1.5mm, 1.8mm, 2.0mm
Length: 20m per roll
Color: White or customizable as needed

·Model Application:
Detail treatment of TPO roof waterproofing system, Fusion tiles matching products.

08 Vapor Barrier

·Definition of Terms:
Manufactured through composite processing of polyethylene or polypropylene polymers, it exhibits excellent waterproof and vapor barrier properties, effectively preventing exposure to wind, rain, and indoor pollutants, blocking the intrusion of cold air while inhibiting water vapor penetration, and providing thermal insulation and energy-saving capabilities.

·Operative Norm:
Test Method for Water Vapor Transmission Performance of Building Materials and Their Products GBT17146-2015

·Size of Product:
Wide: 1.5m, 6m
Thickness: 0.5mm
Length: 100m per roll, 200m per roll

·Model Application:
Single-layer roofing waterproofing systems, metal roofing waterproofing systems, and comprehensive roofing waterproofing systems

09 TPO/PVC Photovoltaic Support

·Definition of Terms:
A specialized support for flexible waterproof membranes designed specifically for photovoltaic systems, featuring seamless bonding of thermoplastic polyolefin (TPO) or polyvinyl chloride (PVC) materials with metal brackets, suitable for waterproof roofing and sealing connections with photovoltaic tracks.

·Operative Norm:
Thermoplastic Polyolefin (TPO) Waterproof Membrane GB 27789-2011
Polyvinyl Chloride (PVC) Waterproof Membrane GB 12952-2011

·Size of Product:
Non-punching nail-type, riveted type, and non-rail composite type

·Model Application:
Metal roofing photovoltaic waterproof systems; roof waterproofing renovation for photovoltaic power stations; concrete roofing photovoltaic waterproof systems

·Product Features:
1. High puncture resistance
2. Excellent sealing performance
3. Easy installation

10 Acrylic high-elasticity Waterproof Coating

·Definition of Terms:
Tianda Acrylic High-Elasticity Waterproof Coating is a high-quality roofing waterproofing and renovation coating specifically designed for metal roofs, manufactured using imported polymer raw materials supplemented with premium pigments, fillers, and additives.

·Operative Norm:
Acrylic High-Elasticity Waterproof Coating for Metal Roofs JGT 375-2012

·Product Features:
1. High elasticity, excellent durability, and strong adhesion;
2. Resistant to melting at high temperatures and cracking at low temperatures, with outstanding thermal stability;
3. Superior corrosion resistance, acid/alkali resistance, UV resistance, and aging resistance;
4. Broad applicability, suitable for use in temperatures ranging from -30°C to 90°C;
5. High bonding strength ensures reliable adhesion between the coating and substrate;
6. Applied in liquid form, it forms a high-strength, seamless waterproof film upon drying;
7. Eco-friendly, non-toxic, harmless, and pollution-free, available in multiple colors.

·Model Application:
Renovated roof waterproofing systems, metal roof waterproofing systems, and (concrete) roof waterproofing systems

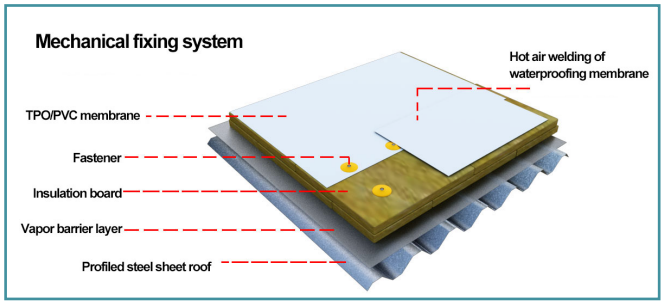
System

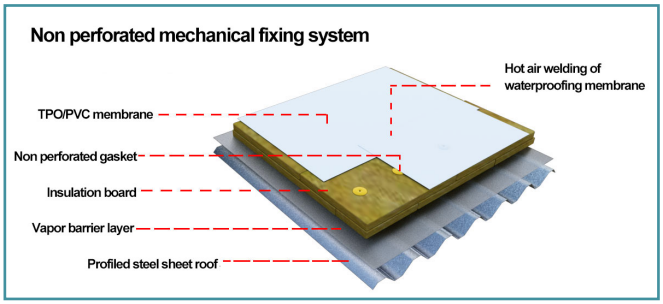
01 Single-layer Roof Waterproofing System

Definition of Terms

A roof waterproofing system is implemented using waterproof menbrane and related materials

System Construction





System Description

Application	Material Selection	System Basis	Construction Method
Steel roof	Type P, Type L, Self - adhesive Type H	JGJ/316-2013 15J207-1-2015	Mechanical, Full- adhesive
Concrete roof			Mechanical, Full- adhesive, Loose-laid

System Advantages

Excellent cost-effectiveness: A single layer meets Grade I/II waterproofing requirements, offering 20-30% lower cost compared to asphaltbased waterproof membranes of the same class.
Superior weather resistance: Maintains stable performance under low temperature bending at -50°C and continuous high-temperature exposure at 135°C for 672 hours.
Outstanding waterproofing: Excellent weldability ensures rapid and reliable detailing.
Energy-efficient and Eco-friendly: The light-colored, low reflectivity roof surface minimizes harmful gas emissions during production and installation, making it eco-conscious.

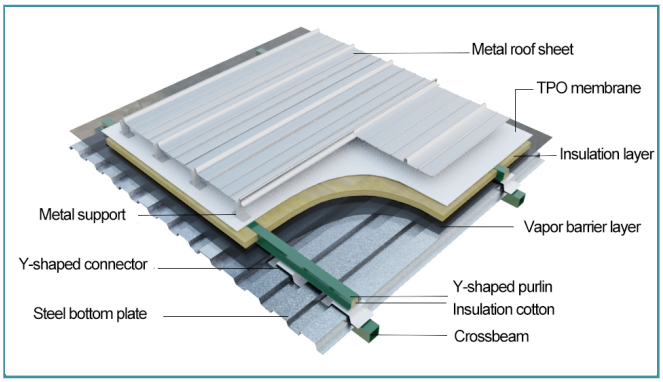
System Case

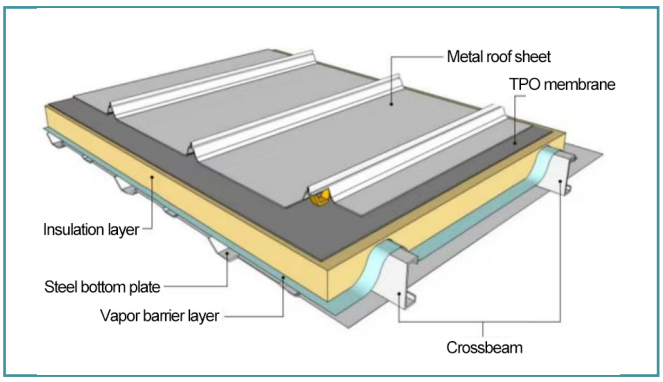
02 Metal Roof Waterproofing System

Definition of Terms

The roofing membranes are laid flat or mechanically secured onto a suitable substrate, with adjacent membranes reliably interconnected. Water runoff channels are installed around the roof perimeter and at perforated sections. After completing all joint treatments, metal roofing materials such as color-coated steel sheets, aluminum-magnesium-manganese alloy sheets, or aluminum sheets are installed over the membranes.

System Construction





System Description

Application	Material Selection	System Basis	Construction Method
Steel roof	Type P, Type L, Self - adhesive Type H	17J925-1-2017	Mechanical, Full- adhesive

System Advantages

High reliability: Extended service life and durability provide additional protection for the original roof, prolonging the building's service life with low maintenance costs.
Excellent usability: Aesthetic appearance, rapid installation, reliable joint treatment, superior waterproof performance, and the use of large-format membranes to minimize joints.

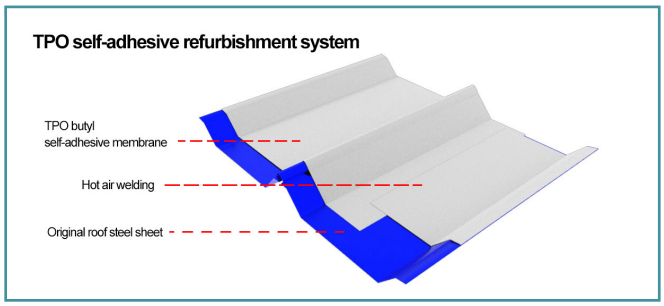
System Case

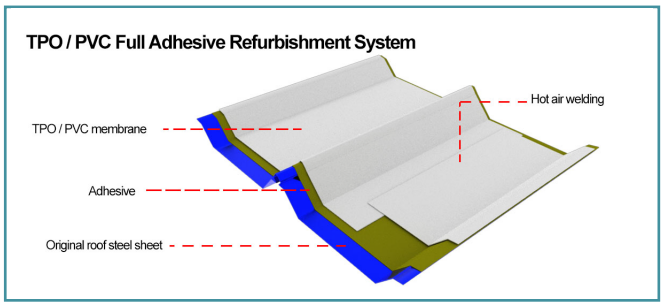
03 Refurbished Roof Waterproofing System

Definition of Terms

The waterproofing system employed for the comprehensive waterproof renovation conducted on the existing buildings roof waterproof layer.

System Construction





System Description

Application	Material Selection	System Basis	Construction Method
Steel roof	Type L, Self - adhesive Type	JGJ/316-2013 15J207-1-2015	Mechanical / Full- adhesive
Concrete roof	Type P, Type L, Self - adhesive Type H		Mechanical / Full- adhesive

System Advantages

Strong applicability:

1. Strong resistance to wind loads.
2. Lightweight and requires a short installation period.
3. There is no penetration damage to the original roof.
4. Suitable for irregularly shaped roofs without additional insulation requirements and for roof renovation systems with load limitations.

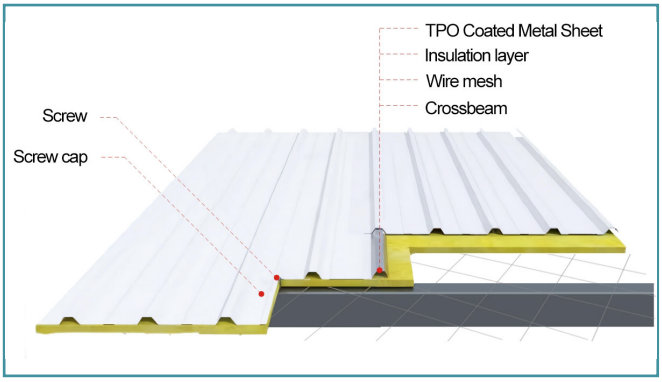
System Case

04 TPO Coated Metal Roof Waterproofing System

Definition of Terms

This high-performance roofing system integrates enclosure, waterproofing, and decorative functions by pre-composing TPO waterproof membranes with metal profiled steel sheets in the factory or assembling them on-site.

System Construction



System Description

Application	Material Selection	System Basis	Construction Method
Steel roof	1.2mm / 1.5mm / 1.8mm TPO + 0.6mm Metal Sheet	GB 27789-2011 GB 50896-2013	Mechanical fixation, edge welding, 360° bite, upright edge locking

System Advantages

Excellence in Waterproofing: The TPO layer provides a seamless waterproof barrier with superior welding performance and reliable joint integrity.
Durable: Features excellent weather resistance, with minimal fading and aging, ensuring longlasting aesthetic appeal of the roof surface.
Energy efficiency and Eco-friendly: The light-colored roof features high reflectivity, excellent thermalinsulation, noise reduction, and energy savings.
Economic convenience: Prefabricated components in factories or on-site molding allow single-layer construction, enabling quick installation and reducing on-site procedures and labor costs.

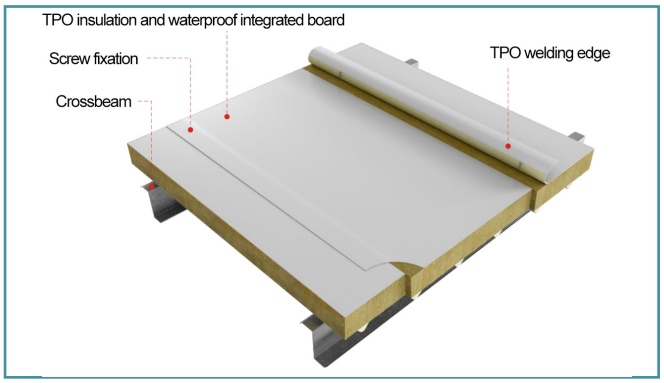
System Case

05 TPO insulation and waterproof integrated board System

Definition of Terms

Integrating TPO waterproof membrane， high - efficiency insulation core material and structural steel plate in to a single unit, this product is preformed through factory composite manufacturing enabling simultaneous waterproofing, steel structure layer integration and thermal insulation performance roof system.

System Construction



System Description

Application	Material Selection	System Basis	Construction Method
Metal insulated waterproof roof	TPO-38-500-1000 TPO-36-450-1000 TPO-36-333-1000 Length: Customized according to project requirements (standard 26m)	GB 27789-2011 GB 55030-2022 15J207-1	Mechanical fixation, edge welding, 360° bite, upright edge locking

System Advantages

Highly efficient and energy-saving: The insulation layer has a low thermal conductivity, significantly reducing building energy consumption and meeting energy-saving design requirements.
Waterproof reliability: High - quality waterproof membranes combined with scientifically engineered joint treatments (welding / sealing), ensure long - lasting, reliable waterproof performance.
Convenient construction: Prefabricated in factories with integrated installation, reducing on-site procedures (thermal insulation and waterproofing completed simultaneously), resulting in high overall cost-effectiveness.
High durability: Resistant to ultraviolet radiation, withstands extreme temperatures, and offers a long service life.

System Case

Case

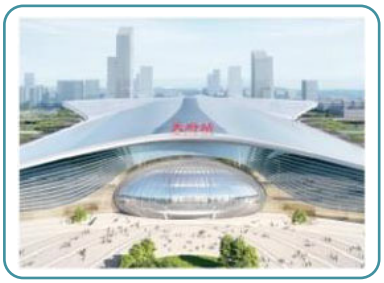
Project Case

Public Project

Theme Park

Stadium

Museum



Railway Station

Bus Station

Cultural Center

Industrial Construction

Photovoltaic Roof

Packaging Materials Factory

Battery Factory

Automobile Factory

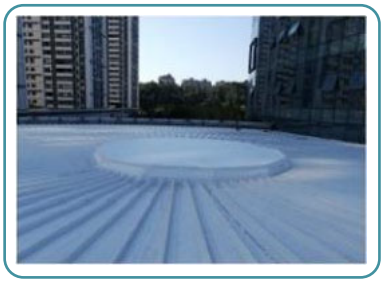
Printing Plant

Industrial Park

Project Case

Industrial Building (Renovation)

Flat Roof



Circular Roof

Concrete Roof

Photovoltaic Roof

Industrial Workshop

Agricultural Factory

TPO Fused Tile Construction

Stadium

Logistics Park

Production Workshop

Breeding Farm

Industrial Park

Reserve Warehouse

TIANDA GROUP

Operation Center: 23rd Floor, Building 5, Runhua Jindi Plaza, Xinxiang High-Speed Railway Station, Henan Province

Production Address: Tianda Industrial Park, Economic Development Zone, Xinxiang City, Henan Province

Tianda Industrial Park, Mengdian Avenue, Huixian City, Henan Province

Web: www.tiandatpo.com