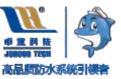
Joaboa Tech, Pioneer of High Quality Waterproof System



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Why choose to work with Joaboa Tech?

Leader in China Building Waterproof Industry

- -Presidium Member of of CWA-China Building Waterproofing Association
- -Famous Brand Preferred by Top 500 Real Estate Companies

Stronger Production Capacity & Export Advantages

- -Imported Production Lines & Raw
 Materials from USA, ITALY
- -Various of Products for Waterproof, External and Interior Wall & Floor Hardening

Pioneer of High Quality Waterproof System

- -Top Sales of Self-adhesive Waterproofing Membranes in the World
- -Inventor of Wet-application &Skin-type Waterproof Theory

Closer to Target Market & Business Partners

-Customized Products &
Conference Marketing Strategy
-Customer-centered Service,
Tightly Bonded with Business
Partners

Pathfinder in Product & Technology

-Inventor of Self-adhesive

- Bituminous Membrane in China
 -Firstly Set up Waterproof
- Engineering Insurance System in Chinese Mainland

Joaboa Tech

Dedicating Non-Leakage Waterproof Projects to The Society
Caring for The Poetic and Peaceful Living of Human Beings

CONTENTS

1 Company Profile	
Company Profile	07
02 Core Construction Technolo	gy
Wet Application	09
Hot Application	12
Dry Application	14
Pre-application	15
Self-adhesive Rituminous	
3 Self-adhesive Bituminous Waterproof Membranes	
O3 Self-adhesive Bituminous Waterproof Membranes BAC Double-sided Self-adhesive Waterproof Membrane	20
BAC Double-sided Self-adhesive Waterproof	
BAC Double-sided Self-adhesive Waterproof Membrane BAC-P Double-sided Self-adhesive Waterproof	
BAC Double-sided Self-adhesive Waterproof Membrane BAC-P Double-sided Self-adhesive Waterproof Membrane PET Aluminum Foil Covered Self-adhesive	f 21

04 Torch-applied Modified Bitumer Waterproof Membranes	า
Water-based Primer SBS Torch-applied Modified Bitumen Waterproof Membrane	26 27
05 Synthetic Polymer Waterproof Membranes	
PVC Waterproof Membrane TPO Waterproof Membrane TPO Self-adhesive Waterproof Membrane	29 30 31
06 Root-resistant Waterproof Membranes	
BAC Self-adhesive Root-resistant Bituminous Waterproof Membrane	33
SBS Torch-applied Root-resistant Bituminous Waterproof Membrane	34
PVC Root-resistant Waterproof Membrane	35

07 Pre-applied Waterproof Membranes	08
Waterproof Membrane	38 W2
S-CLF II Super Tensile Strength Pre-applied Waterproof Membrane (Code: CHINA RED)	39
08 Waterproof Coatings	
SPU Overstrength Elastic One-component Polyurethane Waterproof Coating	10
JS Polymer Cementitious Waterproof Coating	42 FM
NRB Non-curing Rubber Bitumen Waterproof Coating	43 BBA
911 Two-component Polyurethane Waterproof	f 44
Couring	11

9 Maintenance Waterproof Mat	eriai
W256 Water Plugging Agent	46
W257 Water Plugging Agent	47
W200 High Elastic Acrylic Waterproof Coating	48
TPO Weather Resistant Butyl Self-adhesive Waterproof Membrane	49
10 International Certification	
FM Approval Certification	52
BBA Certification	53
ISO Certification	56
11 Landmark Projects(Parts)	
Chinese Domestic Projects	60



COMPANY PROFILE

Shenzhen Joaboa Technology Group (hereinafter referred to as Joaboa Tech) is an industry-leading functional building material system service provider, as well as a national high-tech enterprise, which was established in 1999.

Joaboa Tech is headquartered in Shenzhen, with eight modern production bases located in Tianjin, Suzhou, Shishou, Wuhan, Chengdu, Huizhou, Shishou and Foshan, with several branches spread over the country. Joaboa Tech has achieved more than 100 core national patents and developed 2 national key new products and 5 FM APPROVED medium and high-end PVC/TPO roofing sheets and WICI Waterproof & Insulation integrated products. Joaboa Tech has 5 major industry-standard laboratories with strong technical research and development capabilities, which not only have been selected as Key Laboratories of Guangdong Province but are also approved by the CNAS-China National Accreditation Service for Conformity Assessment.

As a Top 3 brand of building Waterproof/Decoration & Energy-saving/Floor Hardening materials from China, Joaboa Tech's products and systems are widely used in major infrastructure construction, industrial buildings, and civil & commercial buildings, with landmark projects such as Beijing 2008 Olympic Games Stadium, HUAWEI Bantian Base, Tencent Headquarter, Canton Fair Stadium, Crescent Mall (Vietnam), Urban Village (Cambodia), Jontian No. 1 Condominium (Thailand), etc.

As the Pioneer of High-Quality Waterproofing System, Joaboa Tech will continue to dedicate non-leakage Waterproof projects to society, and care for the poetic and peaceful living of human beings!

Our Mission: Dedicating Non-Leakage Waterproof Projects to The Society, Caring for The Poetic and Peaceful Living of Human Beings Our Vision: Pioneer of High-Quality Waterproofing System Our Core Values: Faithful and Generous, Pragmatic and Efficient, Win-Win Cooperation, Creating Value for Customers



1. Wet Application

Method Introduction

Wet Application is to use cement paste or cement mortar as bonding material to bond the membrane with the base course. This invention is a huge renovation for the waterproof industry. It not only reduces the requirements for the base course during the construction of waterproof membrane, but also greatly improves the bonding effect.

Description of cement mortar used in wet application:

The water-cement ratio is between 0.35 and 0.4, the thickness of the coating on the base is controlled in 3-5mm. Note that the base surface needs to be wet with water first (wet, no visible water), then scratched cement mortar. During the paving of membrane, we should pay attention to exhaust the air, so that the membrane and cement mortar can be completely bonded with each other.

Comparison Table of Wet-applied Self-adhesive Waterproofing Membranes and Traditional SBS/APP Torch-applied Waterproofing Membranes

Comparison Items	Traditional Torch-applied Waterproofing Membranes(SBS/APP)	Wet-applied Self-adhesive Waterproofing Membranes
Waterproof Mechanics	Like to put "raincoat" on the concrete structure, once there are defects or breakages when application, water gets in and fluid-channeling happens easily.	To achieve full adhesion between self-adhesive waterproofing membranes and concrete at the micro level. The tight adhesion can avoid the fluid-channeling effectively.
Requirements for the Leveling of the Substrates	Substrate must be very smooth, and screed-coat needed.	Smooth substrate is okay, no need to be of high level, no need to do screed-coat.

JOABOA 09



Requirements for the Drying of the Substrates	Substrates need to be rather dry. Moisture content of the substrates should be lower than 9%	Construction can be done on damp substrates after the visual water removed. There is great advantage on rainy seasons.
Requirement for the Cleanliness of the Substrates	Clean, no pollution, primer agent needed on the substrates.	Clean, no primer agent needed.
Adhesion Mechanics	Adhesion between asphalt and concrete, not reliable	Full Adhesion between the glue of the self-adhesive membranes and concrete with cement mortar, very reliable.
Overlap Treatment	Hot-melting, got high requirement for the workers, quality can't be ensured.	Applied by cold self-adhesive overlap, reliable, low requirements for the workers, quality can be ensured.
Requirements for the Workers	Need the workers to control the temperature of the hot-melting, high requirements for them.	Simple and convenient for the construction, low requirements for the workers.
Environment Friendly	Possible safety hazard because of the open fire on sites, contaminated because of the primer agent with VOC.	Pre-application or cement mortar as the adhesion, no open fire and VOC, no safety hazard, no pollution to the environment.
Influence on the Construction Period	Need the substrates to be dry, screed-coat and substrates treatment needed, greatly influenced by the weather. 3 days at least will be needed to wait until the substrate is dry enough for the waterproofing construction.	Won't be influenced by the weather, can be applied on rainy seasons and damp substrates. No need for screed-coat and substrate treatment. No construction and maintenance period of protective layer in the construction of basement floor. Easy and convenient, can save a lot of construction period.

♦ | CONSTRUCTION STEPS

■ Both wet-application and dry-application are viable based on the site situations.



1.Clean and wet substrates first.
Remove protrusions on the substrate, and make it clean and wet in advance



2.Brush the cement mortar.

Smear the mixed cement mortar on the substrate



3.Place membranes.
Roll and place membranes on the cement mortar



4.Exhuast and adhere
Exhaust the air under membranes,
and stick the overlap of neighboring
membranes tightly at the same time

10|JOABOA|11





2. Hot Application

Method Introduction

HOT APPLICATION is composite of rubber asphalt waterproof coating and self-adhesive membrane which is closely bonded with the base layer to form a "skin-type" waterproof system. It is an organic whole with complementary advantages, which can adapt to the deformation and selfhealing performance of the base, effectively prevent water channeling and reduce leakage hazards.

Substrate Requirements

- 1) The firmness and strength of the base layer should meet the design requirements.
- 2) The surface of the base layer should be clean and smooth, and there should be no quality defects such as powdering, sanding, peeling, voids and pits.
- 3) Remove sundries, greasy dirt, sand, etc. on the surface of the base layer, and the cleaning work must be carried out at any time during the construction.
- 4) If there is clear water on the base layer, it needs to be cleaned before construction. If the base surface is relatively damp, it needs to be dried with a blower.

Method Introduction







1. Cleaning Substrate

2.Brushing Primer

3. Heating Coating







4. Details Treatment

5. Trial Laying of Membranes & Marking

6. Rewind the Membrane







7. Paving the Membrane while Brushing the Rubber Bitumen Coating

8. Overlapping Treatment

9. Closing & Sealing



3. Dry Application

Method Introduction

If the substrate condition can meet with designed and standard requirements, flat, even, dry and without dirties, after covering the base surface with primer, the membranes can be paved directly. All pipe fitting should be pre-covered as designed and standard requirements, and to be seal treated. The internal and external corners of substrate wipe to circular. The min radius of internal corners is 50mm and the max radius of external is 20mm. Make sure the moisture content less than 9% (Dry test: pave 1 m2 membrane smoothly on the screed-coat, then check the membrane paved side whether has watermark or not after 3~4 hours, if not, it can be constructed.)



1. Substrate Cleanup



2. Brush Substrate Treatment Primer



3. Membrane Overlapping



4. Paving of Waterproof Membrane

4. Pre-application

Substrate Requirements

- 1) The base course maintenance shall meet the design and specification requirements. Before the construction of waterproof works, the quality acceptance of the previous works shall be carried out, and the construction can be carried out only after it is qualified.
- 2) Various pipe fittings shall be embedded in advance according to the design and specification requirements, and sealed.
- 3) The substrate surface shall be cleaned and basically flat without obvious protruding parts.
- 4) The internal and external corners of the base surface shall be plastered into a circular arc, with a minimum radius of 50mm for the internal corner and 20mm for the external corner.
- 5) During construction, there should be no open water on the base surface. If there is ponding, the construction can be carried out after the ponding is removed.



1. Substrate Cleanup



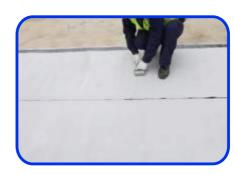
2. Membrane Installation



3.Long Side Overlapping



4. End Side Overlapping



5.Rolling Compaction



⇒ Self-adhesive Bituminous Waterproof Membranes

♦ | Market Share in Chinese Domestic Market

Inventor and Representative Brand of Chinese Self-adhesive Waterproof Membrane, whose market share has ranked as Top 1 in Chinese domestic market for over 10 years, widely used in Viet Nam, Cambodia, India, etc. as well.

YEAR 2007 TO 2016 MARKET SHARE OF JOABOA TECH'S SELF-ADHESIVE BITUMINOUS WATERPROOFING MEMBRANES IN CHINESE DOMESTIC MARKET

Year	Annual Output of Chinese Self-adhesive Waterproofing Membranes (million square meters)	Annual Output of Joaboa Tech's Self-adhesive Waterproofing Membranes (million square meters)	Market Share(%)	Ranking of Joaboa Tech's Market Share in Chinese Domestic Market
2007	49.00	13.05	26.63%	Ist
2008	76.00	19.11	24.14%	Ist
2009	99.50	20.00	20.10%	Ist
2010	128.20	27.00	21.06%	Ist
2011	168.71	30.00	17.78%	Ist

JOABOA 17



♦ | Market Share in Chinese Domestic Market

Year	Annual Output of Chinese Self-adhesive Waterproofing Membranes (million	Annual Output of Joaboa Tech's Self-adhesive Waterproofing	Market Share(%)	Ranking of Joaboa Tech's Market Share in Chinese
2012	203.30	30.00	14.76%	lst
2013	265.71	36.00	13.55%	Ist
2014	318.32	47.00	14.77%	Ist
2015	338.69	47.50	14.02%	Ist
2016	382.02	59.34	15.50%	Ist

Data originated from documents published by China National Building Waterproof Association

♦ | Classification of Self-adhesive Membranes

Product Model	Thickness	Types	Application Methods	Advantages
PET	1.2mm, 1.5mm, 2.0mm	Single-sided		Highest cost-effective
CLF	1.5mm, 2.0mm	Self-adhesive	Wet Application,	Satisfactory quality, using cross laminated film imported from Valeron, USA, ASTM standard.
BAC-P	1.5mm, 2.0mm	Double-sided	Dry Application	Best-seller, strongly recommended to international market
BAC	3.0mm, 4.0mm	Self-adhesive		Reinforced with Polyester, the best weapon to compete SBS with wet-application
S-CLF	1.5mm, 2.0mm	Single-sided Self- adhesive Type(NS), Double-sided Self- adhesive Type(ND), and Pre-applied Type(YC)	Wet Application Hot Application Dry Application Pre- application	The best HDPE self- adhesive membranes,4 layers of HDPE cross laminated film, 3 types, to meet with different need and demand

18 JOABOA 19



→ 1.BAC Double-sided Self-adhesive Waterproof Membrane

PRODUCT INTRODUCTION

BAC Self-adhesive Waterproof Membrane is composed of a polyester reinforced carcass. modified asphalt, self-adhesive rubber asphalt, and isolation film. The membrane has the performance of bonding with cement slurry and post cast concrete, simple construction, and reliable lapping.



♦ | PRODUCT FEATURES

- Good cost performance
- Low requirements for substrates and short construction period
- Easy for overlapping and sealing treatment
- Adhesion is reliable & convenient to be checked & repaired
- Safe and environment-friendly

SPECIFICATIONS

Standards: GB/T 23441-2009

Thickness (mm)	Width(mm)	Length (m)
2.0、3.0、4.0	1000,2000	10

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

APPLICATION SCOPE

It is applicable to waterproof, anti-seepage, and moisture-proof projects such as basement, roof, subway, tunnel, pipe gallery, pools, and so on.



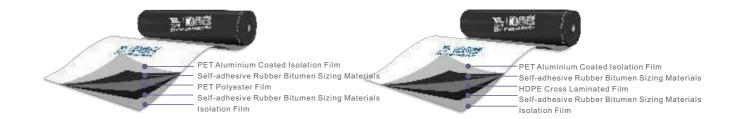




2.BAC-P Double-sided Self-adhesive Waterproof Membrane

PRODUCT INTRODUCTION

BAC-P Self-adhesive Waterproof Membrane is made of PET polyester film or HDPE cross laminated film as interlayer, self-adhesive rubber bitumen sizing materials and isolating film covered on both sides.



PRODUCT FEATURES

- Adhesion is reliable and convenient to be checked or repaired
- Unique wet-application technology, short construction period
- Easy to construct
- Easy and reliable to overlap
- Safe and environment-friendly

SPECIFICATIONS

Standards: GB/T 35467-2017

Thick	kness (mm)	Width(mm)	Length (m)
	1.5	1000	25
	2.0	1000	20

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

APPLICATION SCOPE

It is applicable to waterproof and anti-seepage projects in basement, roof, and other parts of industrial and civil buildings.











3 PET Aluminum Foil Covered Self-adhesive Waterproof Membrane

PRODUCT INTRODUCTION

PET is made of polyester film (aluminum laminated film), self-adhesive rubber, and isolation materials.



♦ | PRODUCT FEATURES

- Ultra-strong bonding performance.
- Safe and environment-friendly. Wetapplication with cement-based materials, no need to prime coat and hot melting, no volatile solvent, no hidden fire hazards, and no harm to human bodies.
- Strong damage resistance and simple for repairing once incur to breakage.
- Covered and protected by cement-based adhesive materials, possessing a rigid
- waterproof function that creates a complete waterproof layer.
- Easy to find out and repair the breakage spots, low maintenance cost, and no phenomenon of fluid channeling, all above promote its water self-locking property.
- Convenient for construction applications.

SPECIFICATIONS

Standards:GB/T 35467-2017

Thickness (mm)	Width(mm)	Length (m)
1.2	1000	30
1.5	1000	20/25
2.0	1000	20

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

♦ | APPLICATION SCOPE

It is applicable to waterproof and anti-seepage projects in basement, roof and other parts of industrial and civil buildings.





4 CLF Cross Laminated Film Macromolecule Waterproof Membrane

PRODUCT INTRODUCTION

CLF Cross Laminated Film Macromolecule Self-adhesive Waterproof Membrane is made of imported Valeron@ cross-laminated film from the USA, with high tensile strength, high elongation performance, and excellent tear resistance, puncture resistance, and burst resistance.



PRODUCT FEATURES

- High-strength, high-performance, and tear-resistant.
- Bonding is reliable and easy to maintain.
- Unique self-healing performance.
- Simple and efficient for construction.
- Unique wet-application technology, time-saving for the project.
- Safe and environment-friendly.

SPECIFICATIONS

Standards: GB/T 35467-2017 GB 23441-2009

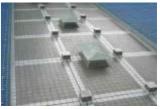
Thickness (mm)	Width(mm)	Length (m)
1.2	1000	30
1.5	1000	20/25
2.0	1000	20

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

APPLICATION SCOPE

It is applicable to waterproof and anti-seepage projects in basement, roof and other parts of industrial









5. S-CLF Super Tensile Strength Self-adhesive Waterproof Membrane (NS & ND Type)

◆ | PRODUCT INTRODUCTION

S-CLF Super Tensile Strength Cross Laminated Film Self-adhesive Waterproof Membrane is mainly composed of imported Valeron@ strength film, high-performance self-adhesive asphalt rubber, and isolated film. It includes three types: single-sided type(NS), doublesided type(ND), and pre-application type(YC). Its tensile strength and tear resistance performance are 2-3 times higher than traditional self- adhesive membranes.



♦ | PRODUCT FEATURES

- Outstanding tensile strength and tear resistance performance in all directions to withstand basement deformation.
- 4 layers of cross-laminated films, better dimensional stability, no warping, and wrinkle. Excellent thermal stability and surface are UV resistant.
- Lighter and thinner, so under the same physical performance, it will be more convenient and time-saving for construction work.
- YC type with anti-sticking layer can solve the foot sticking problem, also penetrating resistant. And it can be bonded to the upper protective concrete layer firmly to achieve Skin Type waterproof effect after basement application.

SPECIFICATIONS

Standards: Q/320584PAI011-2019 Q/12TJZB013-2019 Q/WZB002-2019 Q/55895568-2 · 04-2019 Q/ZB029-2019

Thickness (mm)	Width(mm)	Length (m)
1.2	1000	20
1.5	1000	20
2.0	1000	20

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

APPLICATION SCOPE

It is applicable to waterproof and anti-seepage projects in basement, roof and other parts of industrial and civil buildings.







1. Water-based Primer

PRODUCT INTRODUCTION

JOABOA Water-based Primer is a mixture of asphalt and rubber aqueous as the main components and additives. It can clean up dust before the construction of waterproofing membranes and coatings and can effectively improve the bonding strength between the waterproofing layer and substrate.



PRODUCT FEATURES

- Good bonding strength, to improve the bonding of waterproofing layer and substrate.
- Good Permeability and sealing to the substrate.
- Liquid cold application.
- Water-based, safe and environmentfriendly.

APPLICATION SCOPE

Suitable for the substrate treatment before the application of bituminous waterproofing membranes & waterproofing coatings.





PACKAGES

20 kg per pail

♦ SPECIFICATIONS

JS/T 1069-2009

2. SBS Torch-applied Modified Bitumen Waterproof Membrane

PRODUCT INTRODUCTION

SBS Modified Bitumen Waterproof Membrane is made of bitumen modified with Styrene-Butadiene-Styrene (SBS) for dipping and painting. Its upper surface covers PE membrane and color sand or schist, and a lower surface is made of isolation material.



PRODUCT FEATURES

- Additional 2m width, reduce overlap.
- The width membrane simple and efficient construct, greatly saving the construction period.
- Advanced production line from A&D company imported production line of USA.
- Excellent comprehensive physical properties.
- Stable dimension.
- Wide adaptability of facing material.

SPECIFICATION

Standards: GB 18242-2008

Thickness (mm)	Width(mm)	Length (m)
3.0	1000	10
4.0	1000	7.5/10

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

APPLICATION SCOPE

It is applicable to waterproof and anti-seepage projects in basement, roof and other parts of industrial and civil buildings



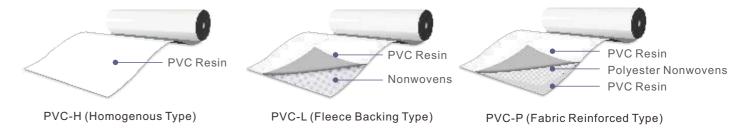




→ 1. PVC Waterproof Membrane

♦ | PRODUCT INTRODUCTION

PVC Waterproof Membrane is a kind of macromolecule material with excellent properties, which consists of polyvinyl chloride resin mainly and various dedicated auxiliaries, antiaging ingredients, produced by advanced equipment and technology.



♦ SPECIFICATION

Standards: GB 12952-2011

Types	Product Code	Thickness (mm)	Width(mm)	Length (m)
Homogenous	PVC-H	1.2、1.5、1.8、2.0	2000	20
Fleece Backing	PVC-L	1.2、1.5、1.8、2.0	2000	20
Fabric Reinforced	PVC-P	1.2、1.5、1.8、2.0	2050	20

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

♦ | PRODUCT FEATURES

- World-class level, PVC has passed FM Approval of USA.
- Strong tensile strength, high elongation.
- Excellent anti- extreme weather properties can
 adapt to various environment temperature
 Differences.
- Suitable for exposed projects with a long lifetime and good anti-aging property.
- Can be welded firmly and reliably.
- Outstanding root resistance, the best choice for planted roofs.
- Simple and fast construction without pollution.
- Great plasticity and fast treatment with corners and
- details.

♦ | APPLICATION SCOPE

It is applicable to expose and non-exposed roofs of steel structures and concrete structures.

It applies to waterproof engineering of basement and subway tunnels.





JOABOA 29

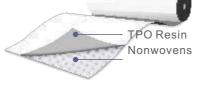


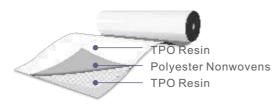
2. TPO Waterproof Membrane

PRODUCT INTRODUCTION

TPO Waterproof Membrane consists of thermoplastic polyolefin compound resin materials as the base stock, reinforced with polyester mesh fabric. It is the most energy-saving and environment-friendly roofing material.







TPO-H (Homogenous Type)

TPO-L (Fleece Backing Type)

TPO-P (Fabric Reinforced Type)

SPECIFICATION

Standards: GB 27789-2011

Types	Product Code	Thickness (mm)	Width(mm)	Length (m)
Homogenous	ТРО-Н	1.2、1.5、1.8、2.0	2000	20
Fleece Backing	TPO-L	1.2、1.5、1.8、2.0	2000	20
Fabric Reinforced	TPO-P	1.2、1.5、1.8、2.0	2050	20

PRODUCT FEATURES

- World-class level, TPO has passed FM Approval of USA.
- Safe and reliable, hot air welding method.
- Excellent low-temperature flexibility.
- Outstanding aging resistance and weatherability, life will be over 30 years.
- Root resistance and antimicrobial mildew ability.

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

APPLICATION SCOPE

It is applicable to expose and non-exposed roofs of steel structures and concrete structures.

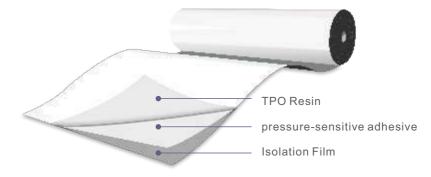
It applies to waterproof engineering of basement and subway tunnels.



3. TPO Self-adhesive Waterproof Membrane

PRODUCT INTRODUCTION

Self-adhesive Thermoplastic Polyolefin (TPO) Waterproof Membrane is a composite waterproof material with superior performance, which is composed of polymer sheet, polymer pressure-sensitive adhesive, and release film. It has the characteristics of excellent tensile performance, high elongation, small size change rate, good low-temperature flexibility, root resistance, stable performance, and reliable quality.



♦ | PRODUCT FEATURES

- Different construction methods can be selected according to different foundation conditions and project characteristics, which are not affected by the weather. During construction in the rainy season, it has outstanding advantages and can effectively ensure the construction period.
- It has high tensile strength, high elongation, and can adapt to large deformation of the base course.
- Excellent high and low-temperature performance can adapt to different environmental temperatures.
- Good aging resistance and long service life.
- Safe and environmentally friendly.
- The surface of the membrane is white, which can effectively reflect ultraviolet light and has excellent dimensional stability.
- The lap joint adopts hot air welding to form a high-strength sealing layer.

SPECIFICATION

Standards: BOTH GB 27789-2011 GB/T 23260-2009

Thickness (mm)	Width(mm)	Length (m)
1.6	2000	20

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

♦ APPLICATION SCOPE

It is applicable to waterproof and anti-seepage projects in basement, roof, and other parts of industrial and civil buildings.







→ 1.BAC Self-adhesive Root-resistant Bituminous Waterproof Membrane

♦ | PRODUCT INTRODUCTION

Based on the original BAC self-adhesive waterproof membrane, a self-adhesive root puncture resistant product is developed for the roofing and basement roof with planting requirements. The material is made of long fiber polyester fiber felt as reinforcing base, self-adhesive modified asphalt with imported root-resistant chemical as coating material, and polyethylene film as isolation material on both sides. BAC self-adhesive root-resistant waterproof membrane can be tightly bonded to the substrate to form a reliable "skin type" waterproof system, with Joaboa Tech's unique Wet-application.



♦ | PRODUCT FEATURES

- It can prevent root penetration and keep the integrity of the waterproofing layer without the influence on the normal growth of the plants.
- It is double-sided self-adhesive membrane, convenient for the overlapping treatment.
- Higher tensile strength, made of thicker rubber bitumen coating layer, stronger adaptable ability to the shrinkage deformation and cracking of the substrate.
- Cold-applied, no open fire, safe and environment-friendly.
- Excellent anti-high and low temperature ability, applicable for both cold and hot area.
- Good corrosion resistance, mildew resistance and weather resistance.



Standards: GB/T 35468-2017 GB 18242-2008 GB/T 35467-2017

Thickness (mm)	Width(mm)	Length (m)
4.0	1000	10

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

APPLICATION SCOPE

Suitable for the use of special space greening projects, mainly used for planting roof, garage planting roof, balcony, roof, terrace, wall, overpass and other buildings and structures with green supporting.







2.SBS Torch-applied Root-resistant Bituminous Waterproof Membrane

PRODUCT INTRODUCTION

On the basis of the original SBS torch-applied membrane, Joaboa Tech developed the root puncture resistant updated type adapted to the the roofing and basement roof with planting requirements. The material is made of high quality polyester tire as reinforcement, SBS (styrenebutaneyl-styrene) modified asphalt with imported chemical root-resistant agent as coating material, both sides covered with polyethylene film as isolation material. This product not only has the same waterproofing performance like normal SBS torch-applied membrane, but also with excellent root-resistant effect.



PRODUCT FEATURES

- It can prevent root penetration and keep the integrity of the waterproofing layer without the influence on the normal growth of the plants.
- It has good weather-resistant performance, with long life span.
- Higher tensile strength, made of thicker rubber bitumen coating layer, stronger adaptable ability to the shrinkage deformation and cracking of the substrate.
- Excellent anti-high and low temperature ability, applicable for both cold and hot area.
- Good corrosion resistance, mildew resistance and weather resistance.
- Convenient for application, reliable for overlapping treatment.

SPECIFICATIONS

Standards: GB/T 35468-2017 GB 18242-2008

Thickness (mm)	Width(mm)	Length (m)
4.0	1000	10

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

◆ | APPLICATION SCOPE

Suitable for the use of special space greening projects, mainly used for planting roof, garage planting roof, balcony, roof, terrace, wall, overpass and other buildings

and structures with green supporting





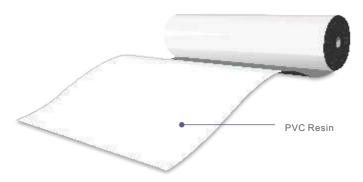




→ 3.PVC Root-resistant Waterproof Membrane

PRODUCT INTRODUCTION

PVC Root-resistant Membrane is a superior physical root-resistant waterproof material, composed of PVC resin as the main raw material, added with all kinds of special additives and anti-aging components, produced by advanced equipment and production technology. It has high tensile strength and elongation, small shrinkage, good low temperature flexibility, strong ability to prevent root penetration, of long service life, stable performance and reliable quality.



PRODUCT FEATURES

- It can prevent root penetration and keep the integrity of the waterproofing layer without the influence on the normal growth of the plants.
- It has excellent weather-resistant performance, with long life span.
- High elasticity, high strength, high elongation, stable size and color, good plasticity, suitable for detail processing.
- High tensile strength, good compression resistance, high elongation, small size change rate of heat
- Good corrosion resistance, mildew resistance and weather resistance
- 2 meters wide to reduce lap joints, more convenient for construction, less material loss.
- Joint through hot air welding to form a body, of high overlapping bonding strength, firm and reliable.

SPECIFICATIONS

Standards: GB 12952-2011 GB/T 35468-2017

Thick	ness (mm)	Width(mm)	Length (m)
1.	2/1.5	2000	20

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

◆ APPLICATION SCOPE

Suitable for the use of special space greening projects, mainly used for planting roof, garage planting roof, balcony, roof, terrace, wall, overpass and other buildings and structures with green supporting.







→ 4.TPO Root-resistant Waterproof Membrane

♦ | PRODUCT INTRODUCTION

TPO Root-resistant Membrane is is a superior physical root-resistant material of polymer waterproof material, with ethylene propylene rubber (EP) weather resistance, ozone resistance, durability weldability with polypropylene, chlorine ingredients, through the special blending technology, to make the polypropylene and ethylene propylene rubber together, thus not only of high flexibility like rubber, but also of good weldability like plastic.



♦ | PRODUCT FEATURES

- It can prevent root penetration and keep the integrity of the waterproofing layer without the influence on the normal growth of the plants.
- Synthetic polymer materials, with high tensile strength, high elongation, strong tear resistance and other excellent physical and mechanical properties.
- Strong UV resistance, stable thermal aging size, good chemical corrosion resistance.
- Compact molecular structure, stable performance, can effectively resist mold, algae and other corrosion.
- The joint is formed by hot air welding, firm and reliable, with long-term weldability.
- 2 meters wide to reduce lap joints, more convenient for construction, less material loss.
- No chlorine, no plasticizer, recyclable, safe, energy-saving and environment-friendly.

♦ | SPECIFICATIONS

Standards: GB 27789-2011 GB/T 35468-2017

Thickness (mm)	Width(mm)	Length (m)
1.2	2000	20

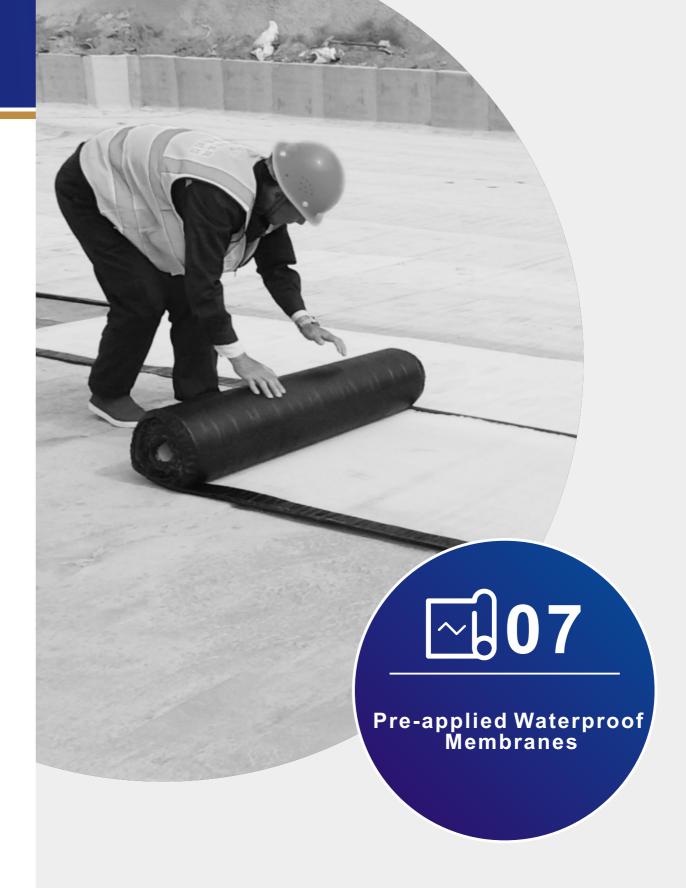
Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

♦ | APPLICATION SCOPE

Suitable for the use of special space greening projects, mainly used for planting roof, garage planting roof, balcony, roof, terrace, wall, overpass and other buildings and structures with green supporting.











1. MAC HDPE Non-asphalt Macromolecule Waterproof Membrane

♦ | PRODUCT INTRODUCTION

JOABOA MAC HDPE Non-asphalt Waterproof Membrane is composed of thick HDPE sheet as the main waterproof layer, pressure sensitive adhesive and fine sands as surface material.



◆ | PRODUCT FEATURES

- Pre-applied Construction Method
- Reliable Bonding Strength, Convenient for Maintenance
- Low Requirements for the Conditions of Substrate, Time-saving
- Safety and Environment- friendly
- Excellent Physical Performance
- Highest Cost-performance

♦ | SPECIFICATION

Standards: GB/T 23457-2017

Thickness (mm)	Width(mm)	Length (m)
1.2	1000/2000	20/25
1.5	1000/2000	20
1.7	1000/2000	20

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

♦ | APPLICATION SCOPE

Mainly applicable for underground waterproof projects like basement roof, basement side walls, subways, tunnels, and other projects which have high standards for the waterproof effect, etc.

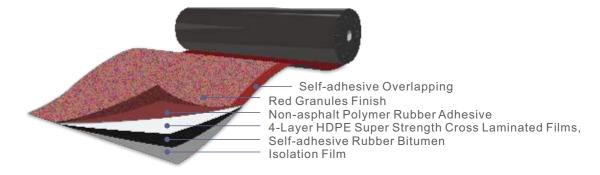




2. S-CLF II Super Tensile Strength Pre-applied Waterproof Membrane (Code: CHINA RED)

♠ | PRODUCT INTRODUCTION

CHINA RED is a new and innovative pre-applied self-adhesive membrane consisting of multi-layer super strength HDPE cross laminated films, non-asphalt polymer rubber adhesive, high-performance self-adhesive rubber bitumen, anti-adhesive red fine sands and release film.



♦ | PRODUCT FEATURES

- Free from torching. Safe and ecofriendly, easy to apply.
- Free from primer chemical. Faster and more efficient application.
- Free from protection screeding after membrane installation. Reducing structure and saving cost.
- Compatible with a wet substrate, to start the application after cleaning visible water ponding.
- Reliable overlap adhesion. Unique double side adhesion and designed adhesive-to-adhesive bonding for every random cutting

♦ | SPECIFICATION

Standards: Q/12TJZB021-2021

Thickness (mm)	Width(mm)	Length (m)
1.5	1000/2000	20
2.0	1000/2000	15

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

♦ | APPLICATION SCOPE

Mainly applicable for underground waterproof projects like basement roof, basement side walls, subways, tunnels, and other projects which have high standards for the waterproof effect, etc.





1.SPU Overstrength Elastic One-component Polyurethane Waterproof Coating

◆ | PRODUCT INTRODUCTION

SPU is a one-component solidified polyurethane waterproof coating with water, composed of main ingredients like isocyanates, and polyethers with some additives. It is a flexible waterproof coating by chemical reaction.



♦ | PRODUCT FEATURES

- One-component waterproof coating. Easy to handle and apply.
- Physical properties of the solidified film are featured with high-strength, high elongation, high-Resilience, good anti-fatigue, and high aging resistance
- Excellent weatherability, so that be adaptable to climate changes in regions with hot or cold Weather.
- As environment- friendly products, it contains no solvent and less volatile organic compounds (VOC), innoxious, odorless, pollution-free, and safe.
- By water solidified mechanism, it can form into a film on a moist base, which contributes to more applicable to SPU.

♦ | EXECUTIVE STANDARD

GB/T 19250—2013

♦ | PACKING SPECIFICATION

25kg per pail Color: Green

♦ | APPLICATION SCOPE

It is applicable to balcony, kitchen, bathroom, roof, underground engineering, subway, tunnel, pipe gallery, and other waterproofing engineering projects.











2. JS Polymer Cementitious Waterproof Coating

PRODUCT INTRODUCTION

JS Polymer Cementitious Waterproof Coating is a two-component macromolecule cement-based coating, which consists of macromolecule emulsion and cement as the main raw materials. various inorganic materials, and additives. It has excellent weatherability, strong adhesion, high strength, innoxious and odorless.



EXECUTIVE STANDARD

GB/T23445-2009

PRODUCT FEATURES

- Can be applied on both dry and wet substrates, performing high adhesion strenath.
- No pollution and harmless.
- Work together with other various waterproof coating and membranes. Live up to different levels of waterproof projects.
- Compared with other similar products, it shows better water resistance and longer-lasting performance.

PACKING SPECIFICATION

Emulsion: 20kg per pail Powder: 16/24 kg per bag

APPLICATION SCOPE

Mainly used in new and old building's roofs, basements, exterior walls, tunnels, channels, pools, kitchens, toilets, bathrooms, and balconies.



3. NRB Non-curing Rubber Bitumen Waterproof Coating

PRODUCT INTRODUCTION

NRB Non-curing Rubber Bitumen Waterproof Coating is made of rubber, bitumen, and additives, which always remain viscous during application. The product is supposed to be heated in site to flowing state, then brushed or sprayed on the substrate to form a waterproof layer with strong cohesion, excellent creep property, and self-healing. It is both a waterproof layer and a bonding layer as well.



♦ | PRODUCT FEATURES

- Never curing: always maintains a viscous paste, creep property, never curing after application, and is able to resist the substrate deformation.
- Lasting bonding: the material remains viscous after application and the bonding effect is long-lasting.
- Durable seal: always creep, ensuring the durable seal of the substrate.
- Strong adherence: it can be bonded with all kinds of the base surface and sheet membranes, and has high bonding strength.
- Double function: not only a waterproof layer but also an excellent bonding layer.
- Strong self-healing: even if the waterproof layer is damaged during the application, it can be self-healing to maintain a complete waterproof layer.
- Convenient construction: you can choose to brush or spray during application which is convenient and quick and can be applied to the design thickness at one time.

EXECUTIVE STANDARD

JC/T 2428-2017

PACKING SPECIFICATION

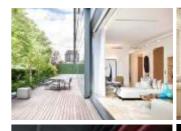
25kg per pail

APPLICATION SCOPE

This product is an excellent waterproof material, which is suitable for waterproof pants such as basement and roof.

This product can be used as a bonding material for modified bitumen waterproof membrane. and can also be used as an auxiliary material for self-adhesive membrane sealing.

This product can be used as a bonding layer for other waterproof materials.











4. 911 Two-component Polyurethane Waterproof Coating

PRODUCT INTRODUCTION

911 Two-component Polyurethane Waterproof Coating is a two-component solid reaction Waterproof coating. A part component is based on polyether resin and diisocyanate prepolymer polymer reaction. B part component is made of the vulcanizing agent, catalyst resin, and other additives. A and B parts are stirred evenly at a certain ratio and brushed on the substrate. After curing, form a flexible waterproof film.



EXECUTIVE STANDARD

GB/T 19250-2013

◆ | PRODUCT FEATURES

- Two-component polyurethane waterproof coating, easy to apply.
- With moderate viscosity, it can be selfleveling after construction under normal temperatures.
- Excellent physical & mechanical properties, good elasticity, high strength, and firm bonding to a base surface.
- Integral solidified film ability is high, and waterproof performance is good.
- Aging resistance, weather resistance, oil resistance, and water resistance are remarkable, and some acid & alkali resistance. Besides its performance life is long.

PACKING SPECIFICATION

A part component: 20kg per pail B part component: 20kg per pail

APPLICATION SCOPE

Applicable to waterproof projects in roofs, basements, balconies, kitchens, and lavatories.













→ 1. W256 Water Plugging Agent

♦ | PRODUCT INTRODUCTION

F256 Water Plug is a high-performance, inorganic, alkali-free, waterproof, dampproof, crack-resistant, impermeable, repair and plugging high-quality material.



◆ | PRODUCT FEATURES

- Quickly repair cracks and holes.
- Rapid solidification.
- The construction is convenient, just add water and stir evenly before use.
- Environmentally friendly, it can be used in drinking water projects.
- Strong water resistance.

GB 23440-2009

♦ PACKING SPECIFICATION

1kg per bag

♦ | APPLICATION SCOPE

It is applicable to the kitchen, bathroom, balcony, swimming pool, and so on.









2.W257 Water Plugging Agent

♦ | PRODUCT INTRODUCTION

F257 is a high-performance inorganic waterproof plugging material processed by special technology with special cement and various additives.



◆ | PRODUCT FEATURES

- Quickly repair cracks and holes.
- Rapid solidification.
- The construction is convenient, just add water and stir evenly before use.
- Environmentally friendly, it can be used in drinking water projects.
- Strong water resistance.

♦ | EXECUTIVE STANDARD

GB 23440-2009

◆ | PACKING SPECIFICATION

5kg per bag

APPLICATION SCOPE

It is applicable to the emergency repair of underground pipe galleries, water pipelines, dams, and equipment foundations.



3. W200 High Elastic Acrylic Waterproof Coating

PRODUCT INTRODUCTION

TWY-200 High Elastic Acrylic Waterproof Coating is based on excellent modified acrylic and several polymer emulsions, through processing and becomes a kind of one-component water-based environmental polymer waterproof coating membrane materials.

PRODUCT FEATURES

- Water-based environmental polymer waterproof coating membrane materials do not include an organic solvent.
- With strong cohesive force, high elasticity, and high cracking resistance.
- With excellent water resistance, high and low-temperature resistance, and anti-aging performance.
- Can be exposed directly, onecomponent, easy to apply.



EXECUTIVE STANDARD

JC/T 864-2008

PACKING SPECIFICATION

2.5kg per pail 10kg per pail 20kg per pail

APPLICATION SCOPE

It is used for the roof, wall, kitchen, bathroom, balcony ,windows and also the crack's waterproof work.

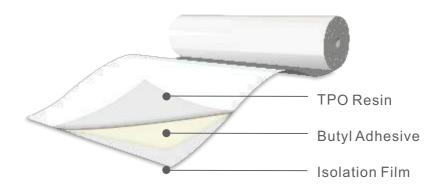
It is applicable to secondary repair of steel structure and concrete roof. (Secondary repairs can be carried out directly on asphalt, membrane materials, etc.)



4.TPO Weather Resistant Butyl Self-adhesive Waterproof Membrane

♦ | PRODUCT INTRODUCTION

TPO Weather Resistant Butyl Self-adhesive Waterproof Membrane is a polymer waterproof material specially developed for leakage maintenance engineering. It is composed of homogeneous TPO polymer sheet, polymer butyl rubber layer and isolation film. It has the characteristics of convenient construction, good bonding effect, high tensile strength, high elongation, chemical corrosion resistance and aging resistance. It can be applied to waterproof maintenance projects of various buildings.



PRODUCT FEATURES

- Excellent Aging Resistance: The warranty period of different materials is 5 years and 20 years, and the actual service life is longer.
- Strong Chemical Corrosion Resistance: It has the ability to resist acid, alkali and salt corrosion, and can be directly exposed for use.
- Excellent Physical and Mechanical Properties: High tensile strength, large elongation and strong resistance to structural deformation.
- Soft Material and Good Adhesion: It can provide various thickness specifications such as 0.9mm and 1.2mm.
- Simple Construction, Safe and Environmentally Friendly: Self-adhesive, wet-applied and other construction methods can be selected depending on the different situation. The construction is simple and there is no solvent or fire in the process, which is safe and environmentally friendly.
- Reduce Energy Consumption and Energy Saving: The light colored surface can reflect sunlight.





4.TPO Weather Resistant Butyl Self-adhesive Waterproof Membrane

♦ | SPECIFICATION

Standards: GB/T 35468-2017 GB 18242-2008 GB/T 35467-2017

NAME	Thickness (mm)	Width(mm)	Length (m)
TPO Weather Resistant Butyl	0.9	1000/2000	30
Self-adhesive Waterproof Membrane	1.2	1000/2000	30

Note: Other specifications and models can be determined by negotiation between the supplier and the demander.

APPLICATION SCOPE

It is suitable for waterproof maintenance of various exposed and non-exposed concrete roofs, light steel roofs, glass daylighting roofs and so on.













1.FM Approval Certification

FM APPROVALS (TPO&PVC&CPC PANEL)



♦ | FM APPROVAL (WATERPROOF & INSULATION PANEL)



2.BBA Certification

BBA Certificate (10 YEAR SYSTEM)

Shenzhen Joaboa Technology Co., Ltd.

Floor 16th, No.2 North Area **Excellence City Central Square** Melin, Futian Dist., Shenzhen Guangdong, 518049

Tel: 00 86 755 36800118

e-mail: zhuobao@zhuobao.com

website: www.zhuobao.com



Agrément Certificate 19/5661

Product Sheet 1

ZERO DEFECT WATERPROOFING SERVICE SYSTEMS

ZERO DEFECT WATERPROOFING SERVICE 10 YEAR SYSTEM

This Agrément Certificate Product Sheet(1) relates to the Zero Defect Waterproofing Service 10 Year System, a hotapplied liquid modified bitumen roof waterproofing, for use in inverted roof specifications on flat roofs with limited access.

(1) Hereinafter referred to as 'Certificate'

CERTIFICATION INCLUDES:

- · factors relating to compliance with Building Regulations where applicable
- · factors relating to additional non-regulatory information where applicable
- · independently verified technical specification
- · assessment criteria and technical investigations
- · design considerations · installation guidance
- · regular surveillance of production
- · formal three-yearly review.

KEY FACTORS ASSESSED

Weathertightness - the system will resist the passage of moisture into the building (see section 6). Properties in relation to fire — under suitable protection, the use of the system can enable a roof to be unrestricted under the national Building Regulations (see section 7).

Resistance to wind uplift - the system will resist the effects of any likely wind suction acting on the roof (see section 8).

Resistance to mechanical damage — the system will accept, without damage, the limited foot traffic and loads associated with installation and maintenance, and the effects of thermal or other minor movements likely to occur in

Durability - under normal service conditions, the system will provide a durable roof waterproofing with a service life in excess of 10 years (see section 11).

The BBA has awarded this Certificate to the company named above for the system described herein. This system has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of First issue: 17 June 2019

Cection

John Albon Chief Scientific Officer

Clause Curtis- Monas Claire Curtis-Thomas Chief Executive

The BBA is a UKAS accretified antification body - Number 113.

The schedule of the current scape of accreditation for product certification is available in pdf format via the UKAS ink on the BBA website at www.bbocarts.cc.uk

Residers are advised to check the volidity and sizes issue number of this Agriconic Certificate by either referring to the BBA wobsite or connacting the BBA direct.

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British Board of Agrément		
Bucknalls Lane		tel: 01923 665300
Watford		clientservices@bbacerts.co.uk
Herts WD25 9BA	©2019	www.bbacerts.co.uk



2.BBA Certification

BBA Certificate (20 YEAR SYSTEM)

Shenzhen Joaboa Technology Co., Ltd.

Floor 16th, No.2 North Area Excellence City Central Square Melin, Futian Dist., Shenzhen Guangdong, 518049 China

Tel: 00 86 755 36800118

e-mail: zhuobao@zhuobao.com

website: www.zhuobao.com



Agrément Certificate 19/5661

Product Sheet 2

ZERO DEFECT WATERPROOFING SERVICE SYSTEMS

ZERO DEFECT WATERPROOFING SERVICE 20 YEAR SYSTEM

This Agrément Certificate Product Sheet [1] relates to the Zero Defect Waterproofing Service 20 Year System, a hotapplied liquid modified bitumen roof waterproofing, for use in inverted roof specifications on flat roofs with limited access.

(1) Hereinafter referred to as 'Certificate'

CERTIFICATION INCLUDES:

- · factors relating to compliance with Building Regulations where applicable
- · factors relating to additional non-regulatory information where applicable
- · independently verified technical specification
- · assessment criteria and technical investigations
- · design considerations
- · installation guidance
- · regular surveillance of production
- · formal three-yearly review.

KEY FACTORS ASSESSED

Weathertightness - the system will resist the passage of moisture into the building (see section 6). Properties in relation to fire - under suitable protection, the use of the system can enable a roof to be unrestricted under the national Building Regulations (see section 7).

Resistance to wind uplift — the system will resist the effects of any likely wind suction acting on the roof (see section 8).

Resistance to mechanical damage - the system will accept, without damage, the limited foot traffic and loads associated with installation and maintenance, and the effects of thermal or other minor movements likely to occur in

Durability - under normal service conditions, the system will provide a durable roof waterproofing with a service life in excess of 20 years (see section 11).

The BBA has awarded this Certificate to the company named above for the system described herein. This system has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Cecton John Albon

Clause Cultus- Monas Claire Curtis-Thomas

Date of First issue: 17 June 2019

Chief Scientific Officer

Chief Executive The BBA is a UKAS accredited certification body - Number 113.

The schedule of the current scape of accreditation for product certification is available in judformat via the UKAS link on the BBA website at investibacents cause Readers are advised to check the validity and latest issue number of the Agrément Certificate by either referring to the BBA website or contacting the BBA direct. Any photographs are for Mustrative purposes only, do not constitute advice and should not be relied upon.

British Board of Agrément **Bucknalls Lane**

Watford

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BBA Certificate (30 YEAR SYSTEM)

Shenzhen Joaboa Technology Co., Ltd.

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e-mail: zhuobao@zhuobao.com

website: www.zhuobao.com



Agrément Certificate 19/5661

Product Sheet 3

ZERO DEFECT WATERPROOFING SERVICE SYSTEMS

ZERO DEFECT WATERPROOFING SERVICE 30 YEAR SYSTEM

This Agrément Certificate Product Sheet(1) relates to the Zero Defect Waterproofing Service 30 Year System, a hotapplied liquid modified bitumen roof waterproofing, for use in inverted roof specifications on flat roofs with limited access.

(1) Hereinafter referred to as 'Certificate'

CERTIFICATION INCLUDES:

- · factors relating to compliance with Building Regulations where applicable
- · factors relating to additional non-regulatory information where applicable
- · independently verified technical specification
- · assessment criteria and technical investigations
- · design considerations
- · installation guidance · regular surveillance of production
- · formal three-yearly review.



KEY FACTORS ASSESSED

Weathertightness - the system will resist the passage of moisture to the interior of a building (see section 6).

Properties in relation to fire - under suitable protection, the use of the system can enable a roof to be unrestricted under the national Building Regulations (see section 7). Resistance to wind uplift — the system will resist the effects of any likely wind suction acting on the

roof (see section 8). Resistance to mechanical damage — the system will accept, without damage, the limited foot traffic and loads associated with installation and maintenance, and the effects of thermal or other minor movements likely to occur in practice (see section 9).

Durability - under normal service conditions, the system will provide a durable roof waterproofing with a service life in excess of 30 years (see section 11).

The BBA has awarded this Certificate to the company named above for the system described herein. This system has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of First issue: 14 October 2019

(ecomp) John Albon

Claws Cultus- Monas Claire Curtis-Thomas Chief Executive

Chief Scientific Officer The BBA is a LIKAS accredited certification body - Number 113.

The schedule of the current scape of accreditation for product certification is available in pdf format via the UKAS kink on the BBA website of www.nbotents.co.uk Readers are advised to check the volidity and latest asse number of this Agreement Certificate by either referring to the BBA website or contacting the BBA direct. Any photographs are for illustrative purposes any, do not constitute advice and should not be relied upon

British Board of Agrément tel: 01923 665300 **Bucknalls Lane** Watford clientservices@bbacerts.co.uk Herts WD25 9BA



3.ISO Certification

♦ ISO45001



♦ ISO9001



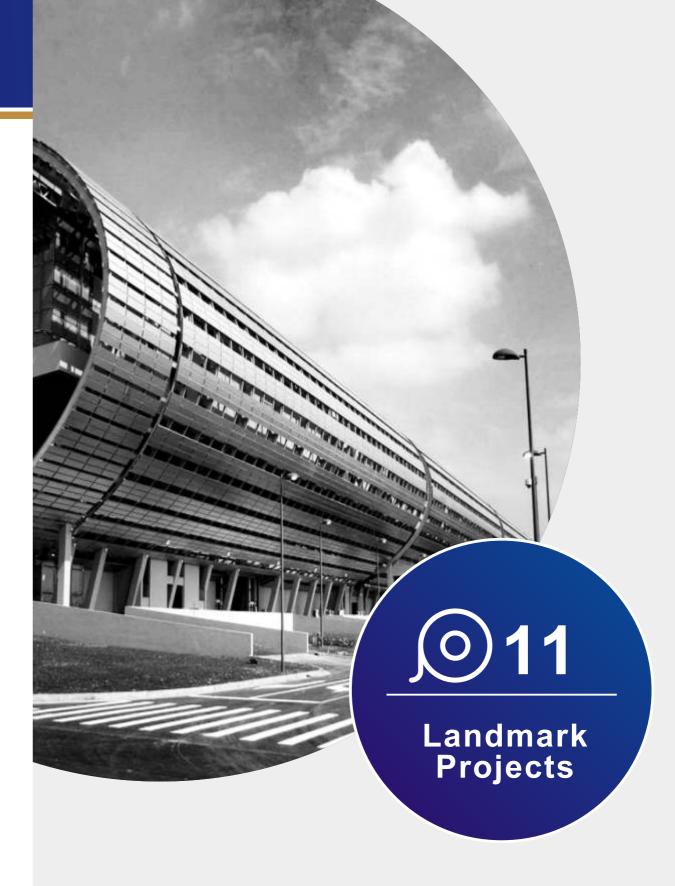


≥ 3.ISO Certification



♦ | ISO14001







→ 1. Chinese Domestic Projects







Beijing 2008 Olympic Stadium



Nanjin Olympic Center



Office Building of China Ministry of Public Security



China National Museum



Canton Fair Stadium



HUAWEI 1ST BANTIAN BASE



TENCENT GLOBAL HQ



ALIBABA GLOBAL HQ



OPPO Intelligent Manufacturing Center



FAURECIA's Auto Interior Decoration Factory



UNIVERSAL Beijing Resort



Shenzhen Bao'an Airport



Nanjin Yangtze River Tunnel



Shanghai Metro Line 9

→ 1. Overseas Projects



Tanzania National Stadium -Tanzania, Africa



Kigali Convention Center -Rwanda, Africa



Double Track Railway Northeast Line



Museum of Wat Pa Ban Taad Chedi-Thailand



Dhonburi Rajabhat University -Thailand



TCL India Industrial Park -India



DELTA Electronics India Factory



Prince Group Cambodia HQ -Cambodia



Prince International Plaza -Cambodia





COMPAL Vietnam Factory -Vietnam



FOXCONN Bac Ninh Factory
-Vietnam



The Crescent Mall -Vietnam



PEGATRON Vietnam Factory -Vietnam



TP-LINK Vietnam Factory -Vietnam



PRODUCTION BASES

CHENDU JOABOA TECHNOLOGY CO., LTD. Location: Huaikou Town, Jintang County, Chengdu City, China

Date of Establishment: July 20, 2010

SUZHOU JOABOA TECHNOLOGY CO., LTD. Location: Qidu Town, Wujiang District, Suzhou, China Date of Establishment: November 26, 2007

HUIZHOU JOABOA TECHNOLOGY CO., LTD.
Location: Lidong Industrial Park, Jiutan, Yuanzhou
Town, Boluo County, Huizhou City, Guangdong Province,
China

Date of Establishment: June 22, 2016

TIANJING JOABOA TECHNOLOGY CO., LTD. Location: Jinghai Economic Development Zone, Jinghai County, Tianjin City, China Date of Establishment: April 14, 2015 HUBEI JOABOA TECHNOLOGY CO., LTD.
Location: Jinping Industrial Park, Shishou Economic
Development Zone, Hubei Province, China
Date of Establishment: March, 2018

FOSHAN TOYU BUILDING MATERIALS CO., LTD.
Location: Sanshui District, Foshan City, Guangdong
Province, China
Date of Establishment: January 19, 2016

HUBEI BUILDING ENERGY-SAVING TECHNOLOGY CO., LTD. Location: Wuhan Yangluo Economic Development Zone, Hubei Province, China Date of Establishment: July, 2009