



ZERO DEFECT
SUPER BONDSURE[®]
WATERPROOFING SYSTEM

SHENZHEN JOABOA TECHNOLOGY CO., LTD

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

Tel : +86 0755 33052250 Fax: +86 0755 33052266 Zipcode: 518049

Website: www.joaboa.net Email: International@zhuobao.com

Ver:2019.10.31

INDEX

1. How can JOABOA TECH accomplish “Zero Defect Waterproofing Project”?

2. Waterproofing System Design

1. Basement floor waterproofing system design(1)
2. Basement floor waterproofing system design(2)
3. Basement side wall waterproofing system design
4. Basement roof waterproofing system design
5. Basement planting roof waterproofing system design
6. Flat roof waterproofing system design(1)
7. Flat roof waterproofing system design(2)
8. Flat roof waterproofing system design(3)
9. Planting roof waterproofing system design

3. Materials Involved in the System

1. TUBIDING Rubber Bitumen Waterproofing Coating
2. Bondsure® BAC Double Side Self-adhesive Waterproofing Membrane
3. Bondsure® BAC Root Resistant Self-adhesive Waterproofing Membrane

4. Construction Technology

5. Landmarks

6. Manufacturing Bases

1

How can JOABOA® TECH accomplish "Zero Defect Waterproofing Project" ?

ZERO DEFECT SUPER BONDSURE® WATERPROOFING SYSTEM

How can JOABOA TECH accomplish "Zero Defect Waterproofing Project"?

JOABOA TECH is the first one that put forward the "SKIN TYPE" waterproofing theory and "WET APPLICATION" construction technology, which have been greatly appreciated and widely imitated by counterparts.

As state-level high-tech enterprise, the reputable leader of Chinese waterproofing industry, after long-term exploration and practice, and the absorption of the advanced waterproofing theories and technologies in the domestic and overseas, JOABOA TECH invents another whole new ZERO DEFECT SUPER BONDSURE® WATERPROOFING SYSTEM, which must become the most effective method to solve the leakage problems of the buildings.

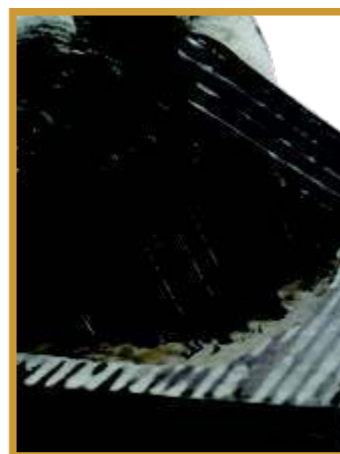
ZERO DEFECT means: Perfect Application Technology

SUPER means: Superior Sealability, Unique Permeability, Excellent Resilience.

Bondsure® is a trademark of JOABOA TECH's self-adhesive waterproofing membranes



Fundamental Shift of Waterproof Design Idea



ZERO DEFECT SUPER BONDSURE® WATERPROOFING SYSTEM is based on JOABOA's SKIN TYPE waterproofing theory, which can greatly enhance the reliability of the waterproofing project by eliminating the fluid-channel between the waterproofing layer and the substrate. Even if there are damages or defects in the waterproofing layer, they won't destroy the whole waterproofing system.

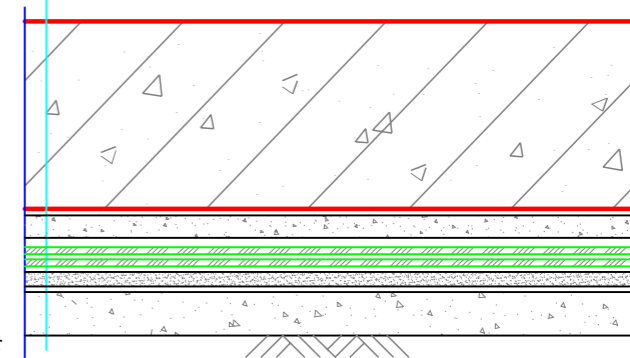
In order to make this design idea come into reality, JOABOA TECH choose "waterproofing membranes & waterproofing coatings" as the complete waterproofing materials. As for the waterproofing coating, we choose TUBIDING Rubber Bitumen Waterproofing Coating which is of superior sealability, unique permeability and excellent resilience(self-healing). Regarding the waterproofing membrane, BAC® Double Side Self-adhesive Waterproofing Membranes are chosen. These two types of waterproofing materials are highly compatible with each other, and can work together to form a strong and reliable waterproofing system.

2

Waterproofing System Design

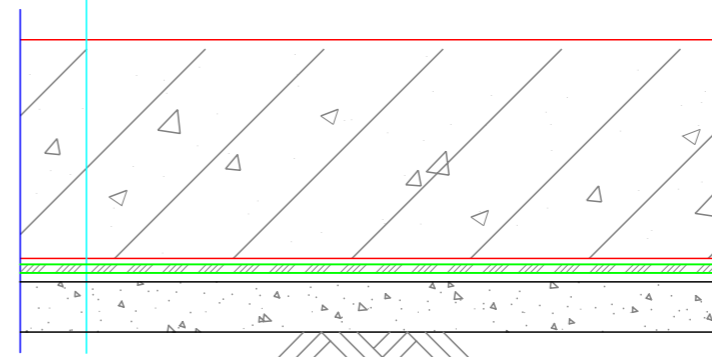
System Construction Practice-One

1. Reinforced concrete floor
2. 50mm thickness fine stone concrete protective layer (imperviousness)
3. Choose one of the following
 - a. 1.5mm thickness BONDSURE® BAC® double side self-adhesive waterproofing membrane(P)
 - b. 3.0mm thickness BONDSURE® BAC® double side self-adhesive waterproofing membrane(PY)
4. 2.0mm thickness TUBIDING rubber bitumen waterproofing coating
5. 20mm thickness 1: 2.5 cement mortar screed-coat
6. 100mm thickness C15 concrete cushion
7. Prime soil compaction



Basement floor waterproofing system design(1)

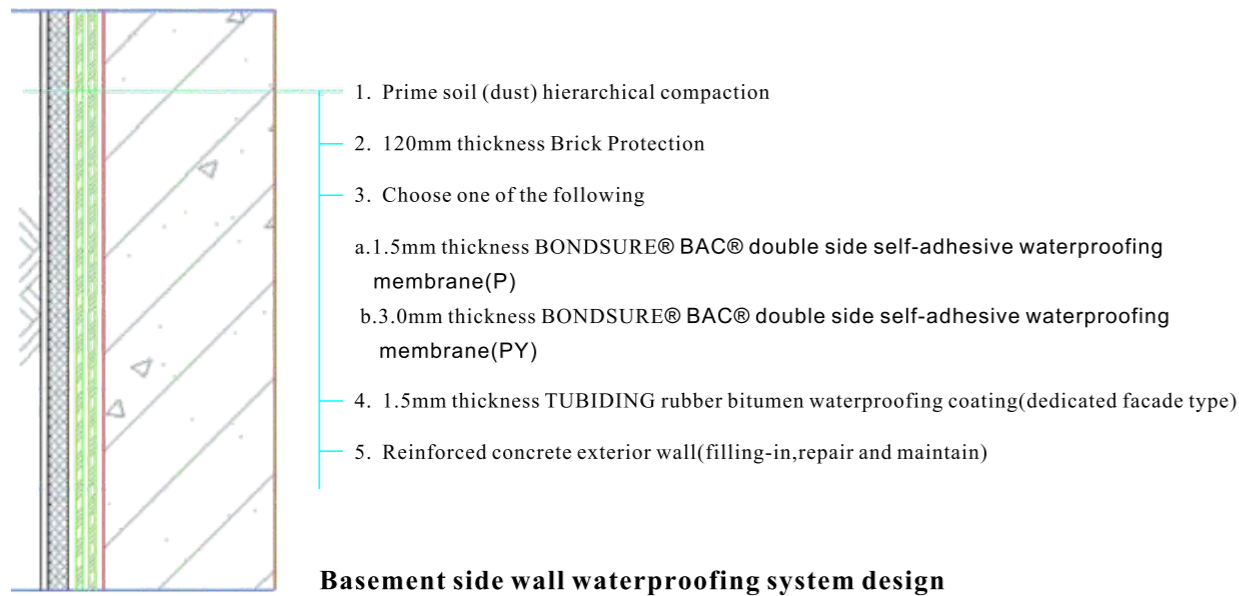
1. Reinforced concrete floor
2. Choose one of the following
 - a. 4.0mm thickness BONDSURE® BAC® double side self-adhesive waterproofing membrane(sand surface)
 - b. 1.2mm thickness BONDSURE® MAC Macromolecule self-adhesive waterproofing membrane(sand surface)
3. 100mm thickness C15 concrete cushion
4. Prime soil compaction



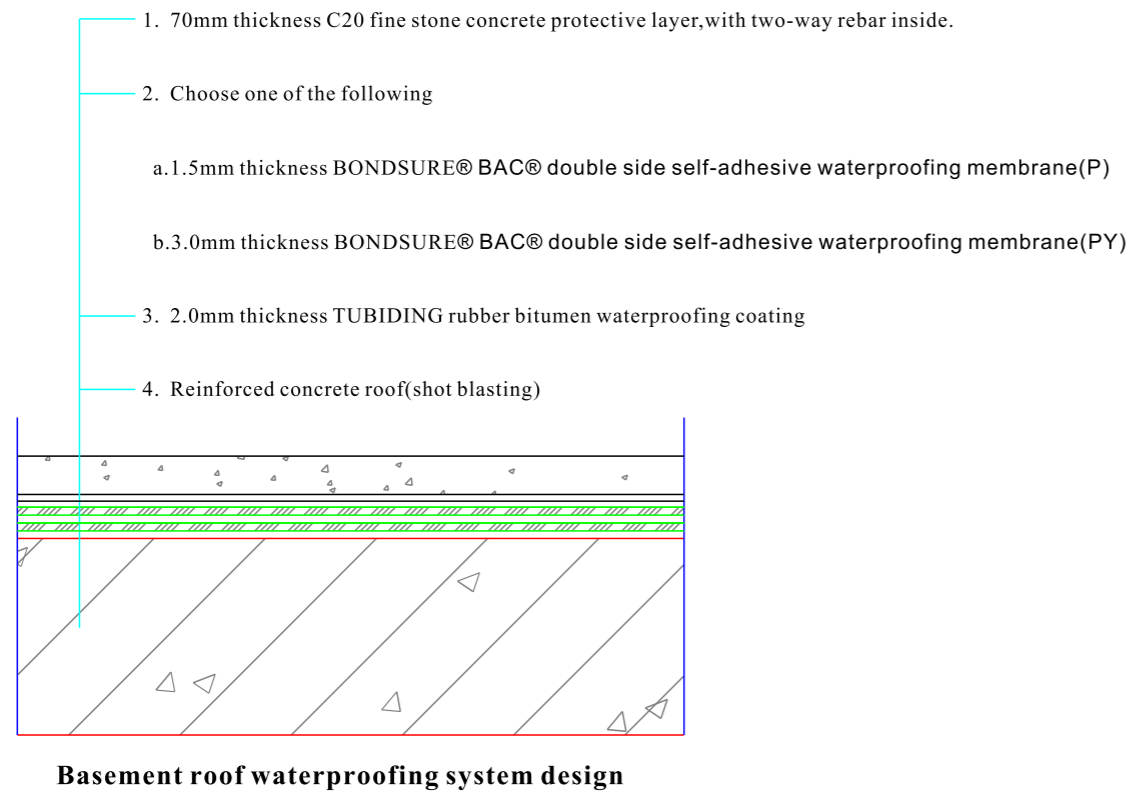
Basement floor waterproofing system design(2)

System Construction Practice-Two

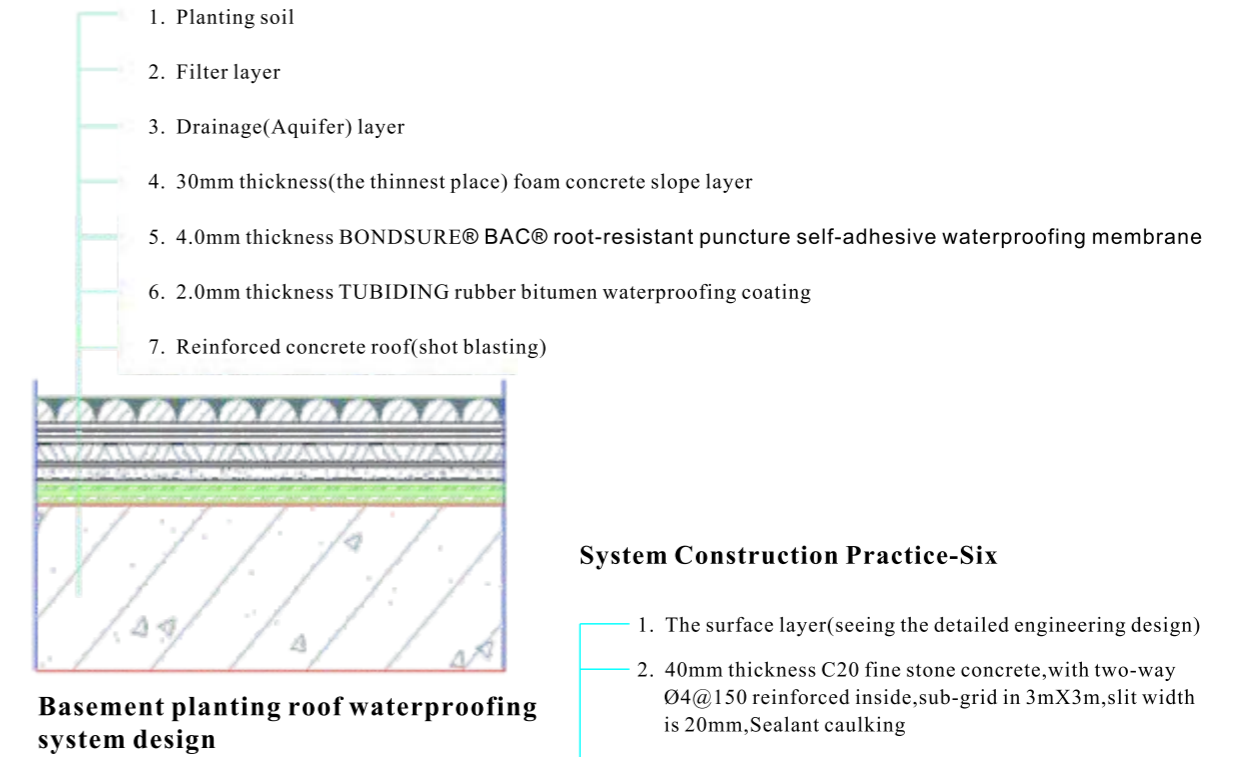
System Construction Practice-Three



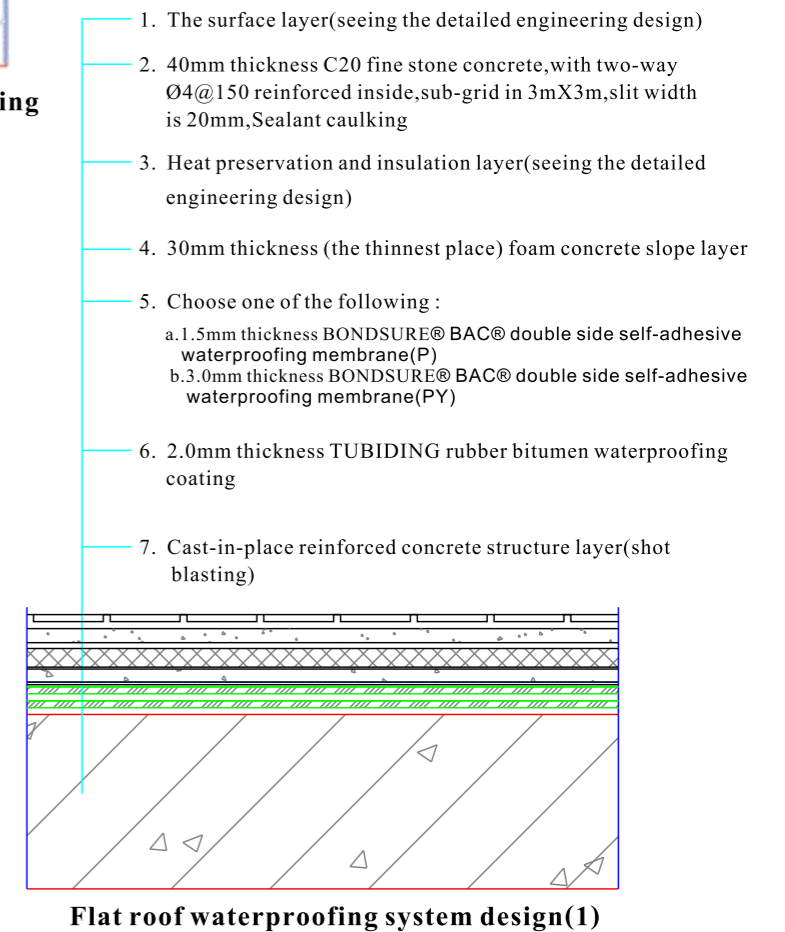
System Construction Practice-Four



System Construction Practice-Five

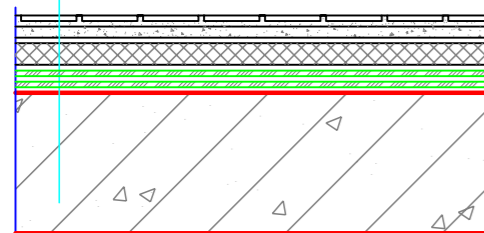


System Construction Practice-Six



System Construction Practice-Seven

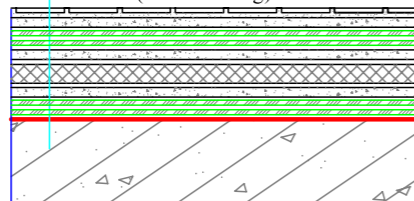
1. surface layer(refer to the specific design)
2. 40mm thickness 20C fine stone concrete,with two way $\psi 4@150$ rebar inside,grid in 3m×3m,slit width is 20mm,with sealant caulking
3. heat preservation and insulation layer(refer to the specific design)
4. choose any one of the below:
 - a. 1.5mm thickness BONDSURE® BAC® double side self-adhesive waterproofing membrane(P)
 - b. 3mm thickness BONDSURE® BAC® double side self-adhesive waterproofing membrane(PY)
5. 2mm thickness TUBIDING rubber bitumen waterproofing coating
6. Cast-in-place reinforced concrete structure layer(shot blasting)



Flat roof waterproofing system design(2)

System Construction Practice-Eight

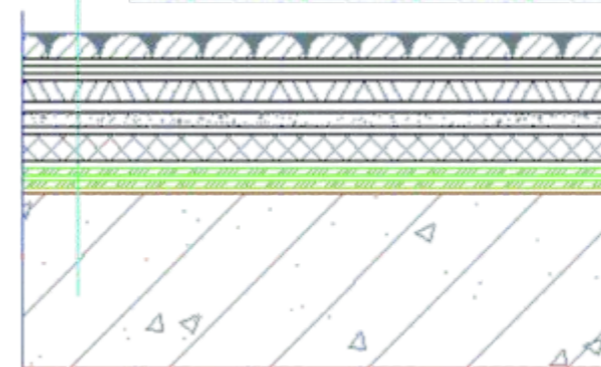
1. surface layer(refer to the specific design)
2. 40mm thickness 20C fine stone concrete,with two way $\psi 4@150$ rebar inside,grid in 3m×3m,slit width is 20mm, with sealant caulking
3. choose any one of the below:
 - a. 1.5mm thickness BONDSURE® BAC® double side self-adhesive waterproofing membrane(P)
 - b. 3mm thickness BONDSURE® BAC® double side self-adhesive waterproofing membrane(PY)
4. 2mm thickness TUBIDING rubber bitumen waterproofing coating
5. 20mm thickness 1:2.5 cement mortar screed-coat (can choose fine stone concrete based on the project situation)
6. heat preservation and insulation layer(refer to the specific design)
7. 30mm thickness(the thinnest place) lightweight aggregate concrete slope layer(exhaust pipe inside)
8. choose any one of the below:
 - a. 1.5mm thickness BONDSURE® BAC® double side self-adhesive waterproofing membrane(P)
 - b. 3mm thickness BONDSURE® BAC® double side self-adhesive waterproofing membrane(PY)
9. 2mm thickness TUBIDING rubber bitumen waterproofing coating
10. Cast-in-place reinforced concrete structure layer (shot blasting)



Flat roof waterproofing system design(3)

System Construction Practice-Nine

1. Planting soil
2. Filter layer
3. Drainage(Aquifer) layer
4. 30mm (the thinnest place) foam concrete slope layer
5. heat preservation and insulation layer(refer to the specific design)
6. Thickness of 4.0mm BONDSURE® BAC® root-resistant puncture self-adhesive waterproofing membrane
7. 2mm thickness TUBIDING rubber bitumen waterproofing coating
8. Cast-in-place reinforced concrete structure layer(shot blasting)



Planting roof waterproofing system design

Remarks:

1. The above are regular practice,we can design for the specific project based on the actual situation.
2. The construction method of pile head、movement joints、post-cast strip、construction joints、wall pipe、roof line、impinges mouth、parapet、equipment foundation etc need to refer to the construction rules.

3

Materials Involved in the System

ZERO DEFECT
SUPER BONDSURE® WATERPROOFING SYSTEM

Materials Involved in the System

TUBIDING Rubber Bitumen Waterproofing Coating



Product Introduction

TUBIDING Rubber Bitumen Waterproofing Coating is a kind of sticky and pasty waterproofing coating in application condition, which is made up of rubber, bitumen and other auxiliaries. Before application, it will be heated to flowing type and form a perfect waterproofing layer with strong adhesion, creep property and self-healing performance. It can be used as a separate waterproofing layer, but can also be applied together with waterproofing membranes to form into composite system.

Reference dosage: 2.5kg/2mm/m² Packages: 20kg /pail

Performance Index

Standard: Q/WZB002-2014

No.	Item	Technical Index		
		I Type	II Type	
1	135 °C Again Melting Time, min ≤	60min		
2	Adhesive property	100% cohesive failure		
3	Extensibility/mm ≥	2	15	
4	Low Temperature Flexibility/°C	-20		
5	Heat resistance/°C	60	70	
		No flow, sliding, dripping		
6	Thermal ageing 50°Cx168h	Extensibility /mm ≥	2	15
		Low Temperature Flexibility /°C	-15	
7	Acid-resistance (2% H ₂ SO ₄ Solution)	Appearance	No changes	
		Extensibility /mm ≥	2	15
		Quality changes/%	±2.0	
8	Alkali resistance [0.1%NaOH+Saturated Ca(OH) ₂ Solution]	Appearance	No changes	
		Extensibility /mm ≥	2	15
		Quality changes /%	±2.0	
9	Salt tolerance (3%CaCl Solution)	Appearance	No changes	
		Extensibility /mm ≥	2	15
		Quality changes /%	±2.0	
10	Self-healing			
11	Watertightness	No changes		
12	The creep properties of shear condition, N/mm	≥0.1 , ≤2		

Bondsure® BAC Double-side Self-adhesive Waterproofing Membrane

Product Introduction

Bondsure® BAC Double-side Self-adhesive Waterproofing Membrane is made of polyester film/cross laminated film, SBS modified bitumen, self-adhesive bitumen sizing material. It has strong resistance to external forces, high water pressure resistance performance, excellent tensile and fatigue resistance properties.

PY type structural drawings:



P type structural drawings:



Specifications & Dimensions

Product name	Type	Thickness(mm)	Width(mm)	Length(m)
Bondsure® BAC Double-side Self-adhesive Waterproofing Membrane	PY	3.0、4.0	1000、2000	10
	P	1.5、2.0	1000、2000	20.30

Other specifications and dimensions are negotiable.

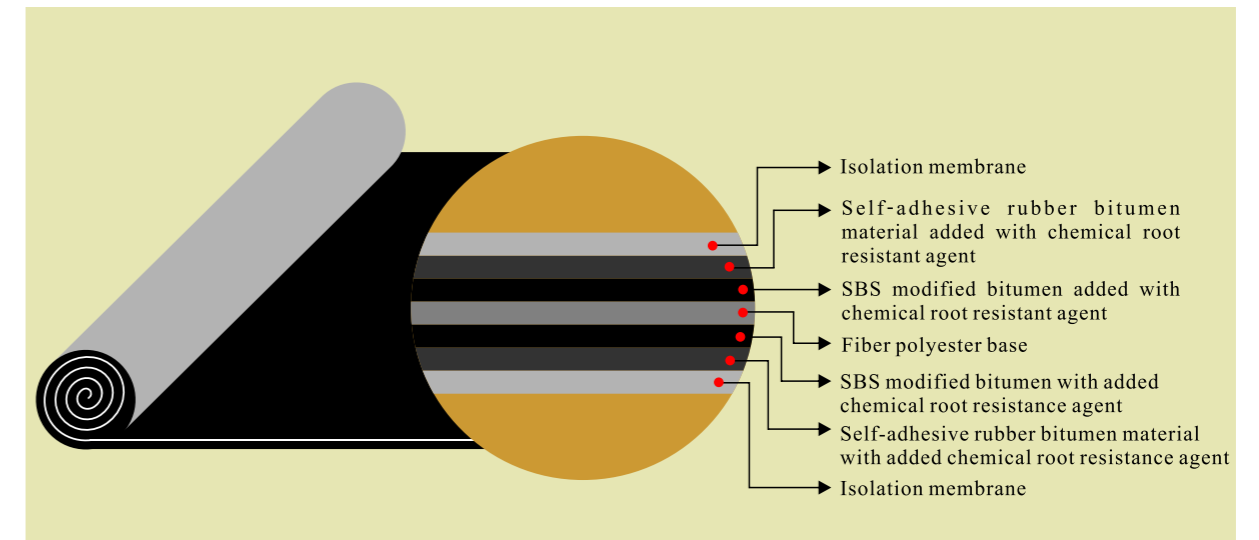
Product Feature

1. Strong resistance to external forces, excellent tensile and fatigue resistance performance.
2. After application, there won't be fluid-channeling between waterproofing membrane layer and waterproofing coating layer. Even if there are any small damages, the water will be strictly limited in a small scale, it will not flow here and there.
3. As TUBIDING Rubber Bitumen Waterproofing Coating will be heated into flow type as bonding layer before applied with waterproofing membranes, it will be possible and rather convenient for the construction in cold winter.
4. Waterproofing Membranes are designed and produced as double-side self-adhesive type, which will greatly enhance the reliability and safety of the waterproofing system, as well as convenient for the application.

Bondsure® BAC Root Resistant Double-side Self-adhesive Waterproofing Membrane

Product construction

Bondsure® BAC Root Resistant Double-side Self-adhesive Waterproofing Membrane is specially designed for roofing and basement roof areas which have need and demand for planting. It's a type of self-adhesive waterproofing membrane that is made of modified bitumen, reinforced with long fiber polyester base, added with imported chemical root resistant agent, covered with isolation film.



Specifications & Dimensions

Product name	Thickness(mm)	Width(mm)	Length(m)
Bondsure® BAC Root Resistant Double-side Self-adhesive Waterproofing Membrane	4.0	1000、2000	10

Other specifications and dimensions are negotiable.

Product Feature

1. It can effectively prevent plant roots penetrating and damaging waterproofing system for a long time, but without influence on the plants.
2. After application, there won't be fluid-channeling between waterproofing membrane layer and waterproofing coating layer. Even if there are any small damages, the water will be strictly limited in a small scale, it will not flow here and there.
3. As TUBIDING Rubber Bitumen Waterproofing Coating will be heated into flow type as bonding layer before applied with waterproofing membranes, it will be possible and rather convenient for the construction in cold winter.
4. Waterproofing Membranes are designed and produced as double-side self-adhesive type, which will greatly enhance the reliability and safety of the waterproofing system, as well as convenient for the application.

4 Construction Technology

ZERO DEFECT SUPER BONDSURE® WATERPROOFING SYSTEM

Construction Technology

Construction Technology



Substrate cleaning:
Cleaning up the sundries and dust.



Test Paving the waterproofing membrane:
Paving the waterproofing membrane on the substrate after the primers dried, and then rollback after confirmed the position.



Applied the rubber bitumen waterproofing coating:
Pouring the heated coating into the specialized scale bucket, and the coating weight is 11.5kgs of each bucket, then pouring 11.5kgs of coatings onto each grid separately, to ensure the coating dosage is 2.5kg/m². Brushing the coatings on the substrate evenly according to the snapping line ranges.



Substrate treatment:
Brush the coatings directly after cleaning up the substrate normally. If necessary, brush the specialized primer on the substrate.

Positioning and snapping line:
Snapping lines according to the testing paving positions of the membranes, each grid 0.92m in width, 5m in length.



Paving the self adhesive membrane:
Removing the isolation film of the membrane's lower surface before the coating cooled, then paving the membrane on the coating layer.



Brushing and heating machine
Spraying machine



Joint strength treatment:
Joint parts(Such as Impinges mouth, Wear plate pipelines, internal and external corners, etc.) treatment by rubber bitumen waterproofing coatings

Heating the rubber bitumen waterproofing coating:
Pouring the coating into the specialized heating machine

Membrane overlapping, convergent sealing:
Removing the isolation film of the membrane to self-adhesive overlapping. Treating external and internal sealing the membrane "T" type overlap by rubber bitumen waterproofing coating. Treating the convergent sealing by rubber bitumen waterproofing coating.

5 ↙ Landmarks

ZERO DEFECT
SUPER BONDSURE® WATERPROOFING SYSTEM

Landmarks



The Number One Condominium
Jomtien Pattaya Phase 1



Morgan Tower



La Vista One



Lingnan Garden



Pattaya Palm Spring Villas Phase 1



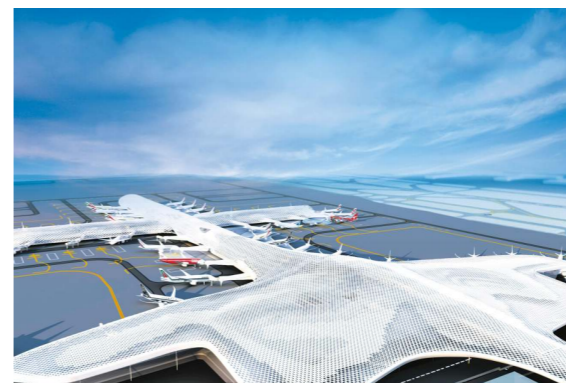
Pattaya Plam Lakeside Phase 1



Tanzania National Stadium
—China's Key Foreign Aid Project



The Winter Olympics in Beijing Zhangjiakou
—The First Winter Olympics in China



Shenzhen Bao'an International Airport
—The Largest Single Building in Shenzhen.



Ministry of Public Security Office Building
—Another Landmark in Tian'anmen Area



Tianjin Binhai International Airport



National Museum of China



Binhai Building of TECENT
—TECENT Global Headquarter Base



The First Affiliated Hospital of Zhengzhou University
—The Largest Hospital in the World

6 Manufacturing Bases

ZERO DEFECT
SUPER BONDSURE® WATERPROOFING SYSTEM

Manufacturing Bases



Wuhan Joaboa Technology Co.,Ltd



Suzhou Joaboa Technology Co.,Ltd



Tianjin Joaboa Technology Co.,Ltd



Chengdu Joaboa New Style Building Materials Co.,Ltd



Foshan Toyu Building Materials Co.,Ltd



Hubei Joaboa Building Energy Saving Technology Co.,Ltd



Huizhou Joaboa Technology Co.,Ltd

Joaboa Tech has invested USD 8,333,334 to set up an excellent self-adhesive membrane product line by introducing advanced facilities from American A&D company.

Joaboa Tech has formed industrial layout network the whole China first. With advanced facilities, strict QMS and excellent environmental facilities, Joaboa make sure good quality for it's products.