



PRE APPLIED HDPE WATERPROOF MEMBRANE

TPO WATERPROOF MEMBRANE

EPDM WATERPROOF MEMBRANE

CPE WATERPROOF MEMBRANE

PVC WATERPROOF MEMBRANE

CROSS-LAMINATED FILM SELF-ADHESIVE MEMBRANE PRODUCT DATA SHEET

QINGDAO ZHONGNUO NEW MATERIAL CO.,LTD.

Introduction to SINO UNION WATERPROOF

SINO UNION WATERPROOF is a high-tech enterprise which combine together with R&D, manufacturing, marketing and technical service. Production bases and R&D which respectively located in Shandong and Jiangsu, with 6 modern waterproof material production lines leading to annual production capacity of waterproof membrane up to 5 million square meters, coating up to 10,000 tons,

As a reputed waterproofing brand in China, We can supply perfect product system, including waterproof membrane, waterproof coating, rigid waterproof material and drainage sheet to provide One-stop excellent waterproof solution. Meanwhile, Our products are sold to 23 countries and regions in the last few years, which are including Japan, Malaysia, Singapore, India, Nigeria, Congo, Australia, New Zealand, UK, US, Canada, Brazil, Chile, etc. We provide perfect multiple fields waterproof system solution applied in many countries' National landmarks, municipal Engineering, traffic engineering, residential commercial real estate and special projects and other fields.

In future, we will implement the development strategy of establishing brilliant organizational culture, forming market-oriented core competitiveness, and building creative team to provide customers with exceeding-expectation products, services, and values. With the promotion of "Leading Technology, Integrity First, Superior Service" development strategy, Sino union waterproof strive to be the loyal body guards for the building, Adhering to social responsibilities and upholding market rules, Sino union waterproof will make efforts to realize sustainable and leap-forward development, so as to become a world's first-rate waterproof enterprise.

Cross-laminated Film Self-adhesive Membrane

WODE^{PROOF-C} Modified Bitumen & Strength Film for Best Quality and Performance



Product Description

WODE^{PROOF-C} is waterproof membrane with “dual” waterproof layers, which technically and perfectly combines strength film with high-quality modified bitumen.

- **High quality raw material:** synthetic rubber, heavy duty road bitumen, tackified resin
- **High strength film:** cross-laminated high density polyethylene (HDPE) film
- **Sealant layer:** high quality reactive super glue
- **Permanent water tightness:** cross-grid structure formed by high polymer and cement compound in sizing material assures permanent water tightness
- **Environment protection:** saving material, green and recyclable, pollution free, high social and economical performance

Core Technology

Perfect combination of cross-laminated film and modified bitumen for incomparable comprehensive waterproof performance

- **Import strength film as liner of self-adhesive layer:** manufactured with world leading patent technology, cross-lamination, flexible and firm, excellent performance
- **Modified bitumen jointly developed by R&D Team and International Scientific Research Institution:** self-adhesive glue can rapidly bond with cement, and high polymer chain segment in the glue can form cross-grid structure with silicate in cement compound for integrated sealing effect.

Product Advantages



1. Real "dual" waterproof layers:

Cross-laminated strength film as surface structure for high tenacity, with strength much higher than normal PE film and PET film, forming real "dual" waterproof layers with self-adhesive membrane



2. Strong adhesion:

Adhering with concrete base course through chemical crosslinking and physical mortising for permanent and irreversible adhesion much stronger than physically adhered membrane



3. Anti-UV for unhurried process connection:

strength film has efficient anti-UV additive to prevent aging and deformation in 3 to 6 months



4. High size stability and non-shrinking when heated:

strength film adopts advanced production technology to assure homogeneous longitudinal and latitudinal deformation, preventing shrinkage caused by severe temperature change



5. Impact and puncture resistance

Effectively preventing the influence caused by puncture of sharp edges or falling of heavy mass in construction



6. Outstanding anti-aging performance

strength film has outstanding weather fastness, and can withstand corrosion of acid, alkaline, and salt, with excellent anti-aging performance



7. Strong climate adaptability

Imported strength film can withstand temperature from -40° C to 93° C

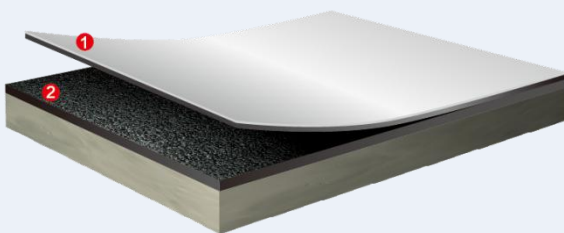
Specifications

Width: 1000mm Thickness: 1.2 / 1.5 / 2.0mm Model: Single-sided / Double-sided

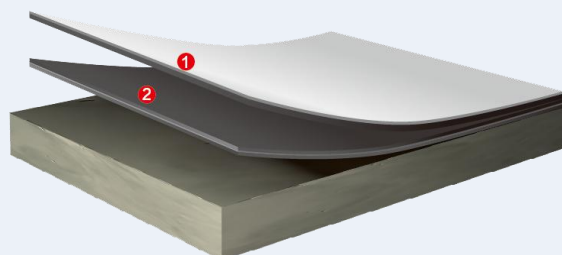
Application Scope

Non-exposed roof, underground structure, open-excavated metro, tunnel, pool, channel, and other related works

Compound Application of WODE^{PROOF-C} Cross-laminated Film Self-adhesive Membrane



1. WODE^{PROOF-C} Self-adhesive Membrane
 2. NRC Non-solidify Rubber Coating



1. WODE^{PROOF-C} Self-adhesive Membrane (Single-sided)
 2. WODE^{PROOF-C} Self-adhesive Membrane (Double-sided)

Performance Index

Executive Standard: GB/T23457-2009 (Wet-applied Category P)

Items		Index	
		P	
		I	II
Tensile Performance	Tension (N/50mm) ≥	150	200
	Elongation at Max Tension (%) ≥	30	150
Tearing Strength (N) ≥		12	25
Heat Resistance		70°C, 2h, no displacement, flowing or dropping	
Low Temperature Flexibility (°C)		-15	-25
Water Impermeability		0.3MPa, 120min, impermeable	
Peeling Strength between Membranes (N/mm) ≥	No Treatment	1.0	
	Thermal Treatment	1.0	
Oil Seepage (Pcs.) ≤		2	
Continuous Adhesion (min) ≥		15	
Peeling Strength with Cement Mortar (N/mm) ≥	No Treatment	2.0	
	Thermal Aging	1.5	
Peeling Strength with Cement Mortar after Immersion (N/mm) ≥		1.5	
Thermal Aging (70°C, 168h)	Tension Retention (%) ≥	90	
	Elongation Retention (%) ≥	80	
	Low Temperature Flexibility (°C)	-13	-23
Thermal Stability	Outer Appearance	No plumping, sliding, or flowing	
	Size Stability (%) ≤	2.0	

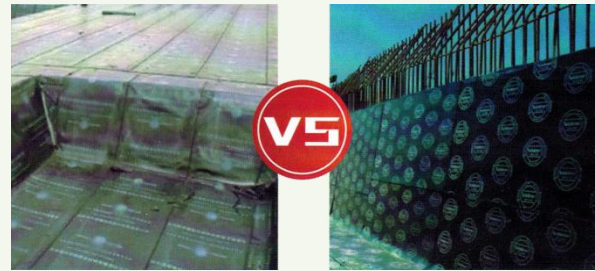
Executive Standard: GB23441-2009 (Category N PE Film)

Items		Index	
		PE	
		I	II
Tensile Performance	Tension (N/50mm) ≥	150	200
	Elongation at Max Tension (%) ≥	200	
	Bitumen Break Elongation (%) ≥	250	
	Tensile Phenomenon	Bituminous layer is not separated from film before breaking of membrane	
Screw Rod Tearing Strength (N) ≥		60	110
Heat Resistance		Sliding less than 2mm at 70°C	
Low Temperature Flexibility (°C)		-20	-30
Water Impermeability		0.2MPa, 120min, impermeable	
Peeling Strength (N/mm) ≥	Membrane and Membrane	1	
	Membrane and Aluminum Sheet	1.5	
Screw Rod Water Tightness		Pass	
Oil Seepage (Pcs.) ≤		2	
Continuous Adhesion (min) ≥		20	
Thermal Aging	Tension Retention (%) ≥	80	
	Elongation at Max Tension (%) ≥	200	
	Low Temperature Flexibility (°C)	-18	-28
	Peeling Strength with Aluminum Sheet (N/mm) ≥	1.5	
Thermal Stability	Outer Appearance	No plumping, wrinkling, sliding, or flowing	
	Size Stability (%) ≤	2.0	

Comparison with Competitor Product



Other Film VS Strength Film



Other Film VS Strength Film



Screw Rod Tearing Test



Tearing Resistance



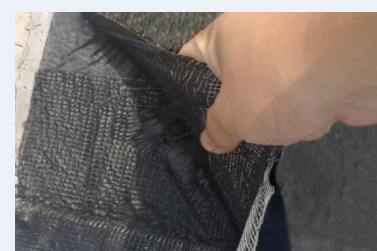
High Peeling Strength

Conclusions:

1. Screw rod tearing strength of film is much higher than that of ordinary films, with superior tearing resistance transitivity;
2. Aspect contraction ratio of strength film is higher than that of ordinary films, with better anti-wrinkling performance;
3. Tensile strength and elongation are two mutually contradictory indexes. At the same tensile strength, strength film has larger elongation to resist deformation.

Outstanding Construction Performance

1. **Saving construction period and engineering cost:** low requirements on base course, and can be directly applied on **wet or humid** concrete course to shorten construction period and save engineering cost;
2. **Safe and environmental construction method:** wet-applied method is adopted to firmly adheres membrane with concrete by curing of cement, free from open fire, safer environmental and energy-saving;
3. **Reliable and easy overlapping:** directly adhered overlapping edge for easy and reliable construction;
4. **High tearing strength and easily cut:** high tearing strength of strength film for reliable performance at hole, edge, corner, joint, and other positions;



Construction Method and Flexible Application

Dry method and wet method commonly applied with self-adhesive membrane may be put to use in construction:

Dry method: membrane is directly applied after the base course is processed with treating agent;

Wet method: construction is implemented with plain cement as the medium, with the base course clean, without accumulated water.

Process Flow

Dry method:

Base course check and acceptance → base course cleaning → base course treating agent → detail treatment → large scale application and rolling → overlapping edge rolling and sealing → protection layer

Wet method:

Base course check and acceptance → base course cleaning → cement mortar preparation → detail treatment → membrane pre-application → cement mortar application → membrane application and rolling → overlapping edge rolling → overlapping joint sealing treatment → protection layer

Illustration of Wet Method



Equipment



Base Course Treatment



Cement Mortar



Detail Treatment



Pre-application



Mortar Painting



Membrane

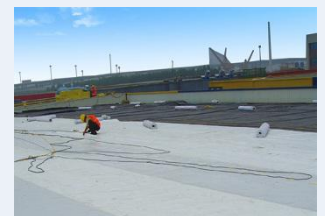


Joint Rolling



Joint Sealing

Engineering Cases



Advantages of



Brand

SINO UNION WATERPROOF is professional waterproof system supplier integrating scientific research and development, production and sales, and construction service altogether, and a leading brand engaged in China's waterproof industry.

Quality

Advanced world grade production lines, Skilled and strict QC system with ASTM&EN STANDARD, Focus on every customer, Treat every indicator seriously, check the whole process from incoming material inspection, online inspection and finished product inspection, and keep all the hidden quality problems in the factory to give customers professional installation guidance, in order to achieve "Zero" Quality complain.

Scale

SINO UNION WATERPROOF has 3 productions bases in Shandong, Jiangsu, Jilin, and Guangdong, with 6 modern waterproof material production lines leading to annual production capacity of waterproof membrane up to 5 million square meters, coating up to 10,000 tons

Trust

SINO UNION WATERPROOF adheres to scale production, adopts advanced technology and equipment, and takes technical innovation and research optimization as the foundation, providing customers in different fields with the best choices.



Quality Create the Trust
SINO UNION WATERPROOF

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<http://www.sinowaterproof.com>

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