# Polyvinyl-chloride (PVC) waterproofing Membrane

# Product advantage

- Mixing automation. This mixture adopts automatic temperature control, automatic control of time, automatic feeding control:
- Using twin-screw extrusion equipment co-extrusion, screw temperature using computer automatic temperature control system;
- The machine adopts width 2.1 meters wide die extrusion equipment greatly;
- The three rollers rolling device precision equipment, the system adopts automatic distance

### Product instruction •

The polyvinyl-chloride (PVC) waterproofing volume material is one performance outstanding high quality, the high polymer waterproofing sheet material, joins processing assistants and so on plasticizer, anti-ultraviolet ray medicinal preparation, anti-aged medicinal preparation, stabilizer after the PVC resin, through squeezes out the law production formation the high polymer waterproofing volume material. Because this product has used the unique product formula, the product life has far exceeded the general waterproofing material, the entire waterproof system life is long, the roofing surpasses for 30 years, underground surpasses for 50 years, in the construction, the civil engineering obtains the widespread application.

EXCAID™ is one kind of thermosplastic PVC waterproofing material, this volume material is takes the stiffener by the polyester fiber fabric, through special squeezes out the craft, causes the two-sided igelite levels and the middle polyester stiffener unifies the high polymer volume material which into a body forms. The formula advanced igelite level and network structure's polyester fiber fabric unifies, enables the volume material to have the extremely good size stability and the low thermal-expansion coefficient. The promotion volume material exposes directly in the natural environment the long-term performance, simultaneously, curls the material surface layer unique coating to enable the volume material to have from the clean function, prevents in the air the dust dust and the pollutant colors in the volume material.





EXCAID™ Homogeneous PVC waterproof membrane



MMMIXTOR EXCAID™ Enhanced reinforced type PVC waterproof membrane

MMMXXE

# Specification

Standard width 2.05m, thickness 1.2mm/1.5mm/2.0mm, standard length

# **Product characteristic**

- The service life is long, bears aged, the roofing to be possible to use above20 years, underground may reach 50 year long time.
- Longitudinal strength is high, the elongation ratio is high, the heat treatment size change is small.
- Low temperature flexibility is good, the adaptation ambient temperature mobility is good.
- Bears the root system permeability to be good, may make the planter roofing
- Anti-perforating and the impact resistance are good

- Constructs, the wide breadth to join, the guest conveniently to weld reliably few, reliable, and does not have the pollution.
- \* Bears chemistry corrosiveness strongly, to be suitable the special situation.
- Has the good plasticity, the corner detail processing convenience is quick.
- Services conveniently, the cost is inexpensive.
- The validation of artificial after 2000 hours.





Better use hi



Hot air welding Root penetration resistance and weathering resistance







Chemical corrosion resitance



# Product classification

- \* N1 not compound level appears externally the waterproofing material (mainly applies in appears externally roofing waterproofing detail processing)
- \* N2 not compound level must to appear externally the waterproofing material. (mainly applies in must appears externally waterproof detail processing)
- textile fiber one-sided compound to appear externally the waterproofing material. (mainly applies in appears externally roofing waterproof layer big surface use)
- textile fiber one sided compound must to appear externally the waterproofing material. (mainly applies in appears externally roofing waterproof layer big surface use) in fabric to strengthen appears externally the waterproofing material. (mainly applies in exposition roofing waterproofing) in fabric strengthens must appears externally the waterproofing material.
- fabric strengthens must appears externally the waterproofing material. (mainly applies in non-exposition waterproof layer)

# Applicable scope

Polyvinyl-chloride (PVC) waterproof volume material, because has used the unique product formula, the beginning product's life has far exceeded the general waterproofing material, curls the material the outstanding performance to cause it widely to apply in waterproof each domain.













Tunnel

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1	<b>★</b> Tens	ion N/cm ≥	100	160	<b>*</b> 8.0	<b>*</b> 12.0	100	160	
2		fracture elongation % ≥		200	200	200	150	200	
3		measurement changingat heating % ≤		1.0	3.0	2.0	1.5	1.0	
14		cold bending		-25°C no leaking	-20°C no leaking		-20°C no leaking	-25°C no leaking	
5		ion resistance	water impermeability		water impermeability		water impermeability		
6	waterimpermeabvility		water impermeability		water impermeability		water impermeability		
7	bonding prop	erty with cutting(N/mm)≥	3.0/ breaking	g membrane	3.0/ breaking membrane		6.0/ breaking membrane		
		appearance	no craze, no bubble, nocohering, hole		no craze, no bubble, nocohering, hole		no craze, no bubble, nocohering, hole		
8	hot air ageing	tension changing%	±25	+20	±25	±20	±25	±20	
		elongation changing rate%	FULL	4				-	
	chemistry	cold bending %	-15°Cno leaking	-20°C no leaking	-15°C no leaking	-20°C no leaking	-15°C no leaking	-20°C no leaking	
9	corrosion	tension strength% elongation changing rate%	±25	±20	±25	±20	±25	±20	
		cold bending%	-15°C no leaking	-20°C no leaking	-15°C no leaking	-20°C no leaking	-15°C no leaking	-20°Cno leaking	
	phytotrons	tension strength%	±25	±20	±25	±20	±25	±20	
10	acceleratingageing								
	A220	cold bending%	-15°C no leaking	-20°C no leaking	-15°C no leaking	-20°C no leaking	-15°C no leaking	-20°C no leaking	

Note :no considering phytotrons accelerating ageing if no discover

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L' type (Single fiber composite) and W type (Within the fabric) N type (no compound layer) \*N type for tensile strength Mpa ≥

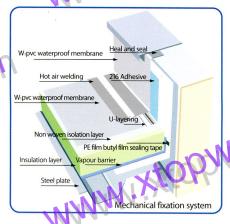


# System scheme

- Mechanical fixation system
- Full adhesive system
- Spatial shop system
- Planting roofing system

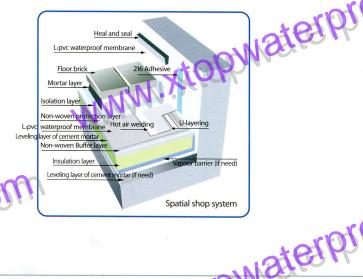
#### Mechanical fixation system:

Uses in the roofing project generally, carries on to the basic unit draws the experiment, according to pulls out the dynamic wind load simulation actual value which and the empirical formula the value, the wind load and "the great ocean" the company provides, figures out the fixed spacing and quantity, satisfies the wind resistant uplift pressure the request. Fixed uses from attacks drills from the tapping nail and the special-purpose metal gasket. The construction is small the weather and the temperature effect.



#### Spatial shop system:

uses in underground, the roof, the floor, the roof garden and the pedestrian driving roofing generally. Does not use the adhesive and fixed. According to the user need, adds an adhesive-bonded cloth in the waterproof layer to take the protector.



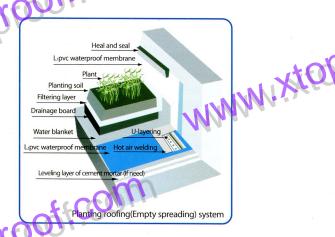
#### Full adhesive system:

Sticks the system completely: uses in the roofing, the basement spandrel wall generally. The special-purpose adhesive will bond with 'the great ocean" adhesive-bonded cloth PVC and the basic unit (tong surface, metal surface, plank surface) cakes, the caking is reliable. The PVC following adhesive-bonded cloth may have the isolation, the protection and the cushioning effect. Basic unit request: Moisture content ≤8%, and is smooth, is dense, do not have the sand buckle and so on, constructs is been big the weather shade noon.



#### Planting roofing(Empty spreading) system:

Generally used for roof garden/square roof/roofing and garage roof/pedestrian traffic roofing etc. Don't need adhesive and fitment allcording to user needs, and one layer non woren fabric in the waterproof layer as protection layer.





# O Part Specifid Application: •

To get the best performance of Excaid™ waterproof system,should use approved accessories of Excaid™ system and make application according to national standard and norms.











#### 1 2 3 4 5 6 7 8

- 1. The roofing puts on the fitting to heal detail processing
- 2. Roofing roof louvre window's detail processing
- 3. Side the crossing heals detail processing
- 4. The parapet wall heals detail processing
- 5. Roofing exhaust duct detail processing
- 6. The steel builds a house the surface to pick optical window detail processing
- he steel builds a house the surface waterproofing service
- Tunnel, underground district waterproofing

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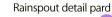
MMNXtOX













# The design of roof pipe detail part

# System components

Whether does the waterproofing system display the remarkable performance is influenced by many factors. The product material quality and the construction quality are the primary factors. The waterproof system's fitting part has the very tremendous influence similarly to system's service life.

EXCAID<sup>TM</sup> undergoes the strict examination, the examination, the track, selects the quality to be lasting.

Stable fitting, Which could guarantee waterproofing system function complete manifestation.





Excaid ™ Cushion



Excaid ™ Layering

DSH-A type plastic welding gun **LEISTER UNIMAT** Hot lap type of automatic welding machine



Excaid ™