



## JOABOA TECH--Test Report of 1.2mm Thickness PVC Waterproofing Membrane(Exposed, Polyester Reinforced Type)

No.	Test Items			Chinese Standard GB 12952-2011	Actual Measurement	Test Result
1	Tensile Properties	Maximum Pulling Strength, N/cm	Longitudinal Direction	≥250	313	Approval
			Horizontal Direction		292	Approval
		Elongation at Break, %	Longitudinal Direction	≥15	27	Approval
			Horizontal Direction		29	Approval
2	Dimension Change Rate after Heat Treatment, %		Longitudinal Direction	≤0.5	0.3	Approval
			Horizontal Direction		0.1	Approval
3	Low Temperature Flexibility			-25℃, no cracking	-25℃, no cracking	Approval
4	Watertightness			0.3MPa, 120min	Impermeable	Approval
5	Anti-impact Property			0.5kg • m	Impermeable	Approval
6	Peel Strength of Overlapping Parts, N/mm			≥3.0 or membranes are damaged	3.2	Approval
7	Trapezoidal Tear Strength, N		Longitudinal Direction	≥250	603	Approval
			Horizontal Direction		452	Approval
8	Water Absorption(70℃, 168h), %		After Immersed in Water	≤4.0	3.2	Approval
			Get Dry	≥-0.40	1.09	Approval



深圳市卓宝科技股份有限公司  
SHENZHEN JOABOA TECHNOLOGY CO.,LTD.

地址(ADD):中国深圳市福田区上梅林卓越城中心广场北区2栋16楼 邮编 ( Post ) : 518049  
Floor 16th, No. 2 North Area, Excellence City Central Square, Meilin, Futian Dist., Shenzhen,  
Guangdong, China.  
电话 ( Tel ) : ( +86 ) 0755-36800118 传真 ( Fax ) : ( +86 ) 0755-33052266 www.zhuobao.com

9	Chemical Resistance (Salt Treatment)	Visual Test		No bubbling, cracks, delamination, bonding and holes	No bubbling, cracks, delamination, bonding and holes	Approval
		Retention Rate of Tensile Strength, %	Longitudinal Direction	$\geq 85$	96	Approval
			Horizontal Direction		98	Approval
		Retention Rate of Elongation, %	Longitudinal Direction	$\geq 80$	98	Approval
			Horizontal Direction		98	Approval
		Low Temperature Flexibility		-20°C, no cracking	-20°C, no cracking	Approval
10	Chemical Resistance (Alkali Treatment)	Visual Test		No bubbling, cracks, delamination, bonding and holes	No bubbling, cracks, delamination, bonding and holes	Approval
		Retention Rate of Tensile Strength, %	Longitudinal Direction	$\geq 85$	92	Approval
			Horizontal Direction		91	Approval
		Retention Rate of Elongation, %	Longitudinal Direction	$\geq 80$	98	Approval
			Horizontal Direction		98	Approval
		Low Temperature Flexibility		-20°C, no cracking	-20°C, no cracking	Approval
11	Chemical Resistance (Acid Treatment)	Visual Test		No bubbling, cracks, delamination, bonding and holes	No bubbling, cracks, delamination, bonding and holes	Approval
		Retention Rate of Tensile Strength, %	Longitudinal Direction	$\geq 85$	97	Approval
			Horizontal Direction		98	Approval
		Retention Rate of Elongation, %	Longitudinal Direction	$\geq 80$	101	Approval
			Horizontal Direction		105	
		Low Temperature Flexibility		-20°C, no cracking	-20°C, no cracking	Approval



深圳市卓宝科技股份有限公司  
SHENZHEN JOABOA TECHNOLOGY CO.,LTD.

地址(ADD):中国深圳市福田区上梅林卓越城中心广场北区2栋16楼 邮编 ( Post ) : 518049  
Floor 16th,No. 2 North Area,Excellence City Central Square,Meilin,Futian Dist.,Shenzhen,  
Guangdong,China.  
电话 ( Tel ) : ( +86 ) 0755-36800118 传真 ( Fax ) : ( +86 ) 0755-33052266 www.zhuobao.com

		Low Temperature Flexibility		-20°C, no cracking	-20°C, no cracking	Approval
12	Thermal Aging Treatment (80°C, 672h)	Visual Test		No bubbling, cracks, delamination, bonding and holes	No bubbling, cracks, delamination, bonding and holes	Approval
		Retention Rate of Tensile Strength, %	Longitudinal Direction	≥85	96	Approval
			Horizontal Direction		89	Approval
		Retention Rate of Elongation, %	Longitudinal Direction	≥80	110	Approval
			Horizontal Direction		97	Approval
		Low Temperature Flexibility		-20°C, no cracking	-20°C, no cracking	Approval
13	Artificial Weathering Test (2500h)	Visual Test		No bubbling, cracks, delamination, bonding and holes	No bubbling, cracks, delamination, bonding and holes	Approval
		Retention Rate of Tensile Strength, %	Longitudinal Direction	≥85	107	Approval
			Horizontal Direction		99	Approval
		Retention Rate of Elongation, %	Longitudinal Direction	≥80	106	Approval
			Horizontal Direction		110	Approval
		Low Temperature Flexibility		-20°C, no cracking	-20°C, no cracking	Approval