



Polynum™ One Technical Data Sheet

Properties	Units	Polynum™ One
Product Technical data		
Nominal thickness	mm	+/- 4.0
Bubbles diameter	mm	10.0
Foil purity	%	At least 99.0
Foil thickness	Microns	At least 8.0
Emissivity	%	3-5
Reflectivity	%	95-97
Roll size	M	1.20x60.00
Coverage area	M2	72.00
Weight	Gr/m2	255.00
Roll weight	Kg	+/-18.00
Roll diameter	mm	500
Product stability		
Anti corrosion treatment		Both Sides
Scratch Resistance		Both Sides
Shrinkage	%	<0.35
Linear dimensional Changes @ 110°C	%	<0.50
Water Vapor Transmission	g / ft ² · hr	0.0018 (method A)
Resistance to dry & wet delamination @ 60°C		Excellent
Fungi and Bacteria growth		NIL
Thermal Resistance Performances (typical Rt values):	m²·°C/W	Btu*in/(hr*ft²*°F)
Typical Residential roof	1.78	10.10
Typical industrial/commercial roof (w/ceiling)	2.90	16.50
Typical industrial/commercial roof (open)	1.40	8.00
Typical Concrete wall w/ plaster board	1.30	7.30

Properties	Units	Polynum™ One
Typical double brick wall	1.40	8.00
Test\Report\Laboratory	Standard\Method	Results
Basic test reports		
Emittance	ASTM E 408	3% to 5%
Reflectance	ASTM E 408	95%-97%
Water Vapor Transmission	ASTM E-96 (Method A)	0.0018
Tensile properties	ASTM C 1136-92	>10kg/cm2
Puncture properties	ASTM C 1136-92	72 kg/cm
Noise Reduction (NRC)	ASTM 384-90	45%
Noise Reflection	ISO 717-1	6 dB (A)
Sound Transmission Class (STC compound test)	ISO 717-1	STC 30
Product stability tests and reports		
Thermal Stability Test: Linear dimensional Changes (such as shrinkage) @ 110°C	ASTM 1136-92 & ASTM 1204-94	Pass (<0.5%)
Thermal Stability Test for cracks @ 110°C	ASTM 1136-92 & ASTM 1204-94	Pass
Dry Delamination	AS/NSZ 4201.1	Pass
Wet Delamination	AS/NSZ 4201.2	Pass
Resistance to Corrosion	AS/NZS 4859.1 (App.1)	Pass
Evaluation of Fungi and Bacteria growth	ASTM C 1338-00	NIL
Technical Approvals		
European Technical approval	DIT	Pass
Safety (reaction to fire)		
Surface Flame Spread	BS 476 Part 7	Comply
Fire Hazard Properties Horizontal fire test	AS/NZS 1530.03	PASS*
Mean Ignition Time	AS/NZS 1530.03	PASS*
Mean flame propagation time	AS/NZS 1530.03	PASS*
Mean heat release integral	AS/NZS 1530.03	PASS*
Mean smoke release	AS/NZS 1530.03	PASS*
* Fire Retardant formulated		
** Fire Retardant formulated with 18 microns aluminum		