



Polynum™ Ultra technical data sheet

Properties	Units	Polynum™ Ultra
Nominal thickness	mm	+/- 16.0
Bubbles diameter	mm	30.0
Foil purity	%	At least 99.0
Foil thickness	Microns	At least 8.0
Emissivity	%	3-5
Reflectivity	%	95-97
Roll size	M	1.20x20.00
Coverage area	M2	24.00
Weight	Gr/m2	375.00
Roll weight	Kg	+/-9.50
Roll diameter	mm	650
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 Performance (typical Rt values):	m²·°C/W	Btu*in/(hr*ft²*°F)
Typical Residential roof	3.50	19.90
Typical industrial/commercial roof (w/ceiling)	4.90	29.80
Typical industrial/commercial roof (open)	2.70	15.30
Typical Concrete wall w/ plaster board	2.50	14.20
Typical double brick wall	2.60	14.80

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	87 kg/cm**
Noise Reduction (NRC)	ASTM 384-90	73%
Noise Reflection	ISO 717-1	9 dB (A)
Sound Transmission Class (STC compound test)	ISO 717-1	STC 35
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
JIS Technical approval	ISO 5660	Pass
Safety (reaction to fire)		
Surface Flame Spread	BS 476 Part 7	PASS
Fire Propagation Test	BS 476 Part 6	PASS**
Fire Hazard Properties Vertical corner fire test	AS/NZS 1530.02	PASS*
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*
Heat Calories Test	AS/NZS 3837:1998	PASS*
Surface Flame Spread	ASTM E-84	PASS*

Test\Report\Laboratory	Standard\Method	Results
Surface Flame Spread	ANSI/NFPA 255	PASS*
Surface Flame Spread	UL 723	PASS*
Surface Flame Spread French standard	M1	PASS*
Fire properties: European Union (EU)	EN 13501-1-2000	PASS*
Fire Properties by Germany / China	DIN 4102	PASS**
* Fire Retardant formulated ** Fire Retardant formulated with 18 microns aluminum *** Copper or Gold series only		