BUBBLE FOIL (G)



TO TO THE PARTY OF Suitable to be used in roofing insulation as reflection or heat barrier in industrial, commercial and residential buildings, poultry houses metal roofing and house wrapping.

RESIGNATIONS OF QUALITY AND RELIABILITY



Housing Project



Warehouse Project



Poultry House Project



Factory Project



Hotel Resort Project

Enviro-tuff° the superior foil that is specially designed to meet global standards. It meets your needs for an effective and cost efficient protection from the ravages of harsh weather conditions.

Enviro-tuff has high reflective properties. Rigorous tests are constantly conducted to ensure its durability & reliability. It is proven for its effectiveness, making it the ideal choice for providing optimum insulations against radiant heat & moisture vapour. Light in weight yet strong and durable.

Enviro-tuff is designed for easy handling and offers superior quality at the fraction of the overall building cost.

Premium Quality at Competitive Prices



97% Radiant Heat Reflectivity

En⊻ivo-tuff* radiant barrier dramatically improves energy efficiency of a building by effectively reducing up to 97% of radiant



Moisture Barrier (WVTR)

En⊻iro-unff' is a good vapour barrier which specially designed to prevent any penetration of water and moisture-laden air, guarding against condensation, rot and



UV + Heat Stability

 $En \checkmark iro-tuff$ has the ability to maintain its physical size and properties under extreme temperature changes.



Tear & Puncture Resistance

EnViro-tuff is strong and has high tear resistant feature due to its superior reinforcement.



No Wire Netting

Enviro-tuff* being strong and durable is design without additional supporting material



En∆ino-taff* radiant barrier is designed to provide good insulation to improve energy performance of the building and save



Acoustic Features

 $EnMiro-tuff^*$ bubble foil range has noise reduction feature.



Fire Retardant

En⊻ivo-traff* fire rated series tested and complied with international standards such as BS 476 part 6 & 7, ASTM E84 and AS 1530.





BUBBLE FOIL (fire Retardant)







 $6\,$ layers laminate made up of double sided reflective material (Aluminium & Metalized) bonded to FR bubble pack by special FR material.

Standard roll size: W 1,20m x L 30m

CHARACTERISTIC		TEST METHOD	UNIT (SI)	SPECIFICATION
Laminated Roll Specifications	Width	In-house	mm	Nominal ± 5
	Length	In-house	m	Nominal ($<$ 50) \pm 2.0% Nominal (\ge 50) \pm 1.0%
	Grammage	BS EN 965	g/m²	340 ± 100
	Resistance to Dry Delamination	AS/NZS 4201.1	-	No delamination
	Resistance to Wet Delamination	AS/NZS 4201.2	-	No delamination
	Shrinkage MD CD	AS/NZS 4201.3	%	< 0.5 < 0.5
	Duty Tensile Strength MD CD Edge Tear Resistance	AS/NZS 1301.448s	kN/m N	Extra Heavy > 4.5 > 4.5 > 80
	Vapor Barrier classification	ASTM E 96	MNs/g	Medium < 450 >7
	Emittance	ASTM C 1371	Index	Single Sided Reflective ≤ 0.05
	Surface Water Absorbency	AS/NZS 4201.6	-	Unclassified
	Thermal Resistance	ISO 8301/MS ISO 8302	M ² K/w	1.231

G 302A1 (AL/AL)



7 layers laminate made up of double sided reflective material Aluminium Foil bonded to FR bubble pack by special FR material.

Standard roll size: W 1.20m x L 30m

	CHARACTERISTIC	TEST METHOD	UNIT (SI)	SPECIFICATION
Laminated Roll Specifications	Width	In-house	mm	Nominal ± 5
	Length	In-house	m	Nominal (<50) ± 2.0% Nominal (≥50) ± 1.0%
	Grammage	BS EN 965	g/m²	350 ± 100
	Resistance to Dry Delamination	AS/NZS 4201.1	-	No delamination
	Resistance to Wet Delamination	AS/NZS 4201.2	-	No delamination
	Shrinkage MD CD	AS/NZS 4201.3	%	< 0.5 < 0.5
	Duty Tensile Strength MD CD	AS/NZS 1301.448s	kN/m	Heavy > 3.0 > 3.0
	Edge Tear Resistance	TAPPI T470	N	> 50
	Vapor Barrier classification	ASTM E 96	MNs/g	Medium < 450 >7
	Emittance	ASTM C 1371	Index	Double Sided Reflective ≤ 0.05
	Surface Water Absorbency	AS/NZS 4201.6	-	Unclassified
	Thermal Resistance	ISO 8301/MS ISO 8302	M ² K/w	2.209

FIRE RETARDANT TEST FOR G 302B & G 302A1						
CHARACTERISTIC	TEST METHOD	UNIT (SI)	SPECIFICATION			
Fire Propagation of Material						
Sub-Index, $i_{\scriptscriptstyle 1}$	BS 476 ; Part 6	Index	Pass (<6)			
Overall Performance Index			Pass (<12)			
Surface Flame Spread Test	BS 476 ; Part 7	Class	Class 1			
Fire Resistance Classification	-	Class	Class O			

Sample of Specification

V-Foil Enviro-tuff (G 302B & G 302A1) Fire Retardant Bubble Foil With Aluminium Foil And Metalized Foil Bonded To Bubble Pack With Fiberglass Scrim.

Details in accordance with manufacturer's instructions.



Lots 9 & 10, Jalan Usaha 4, Ayer Keroh Industrial Estate, 75450 Melaka, Malaysia.

Tel: 606-232 3898 (5 lines) Fax: 606-232 1437 www.smywoven.com