



# XFW 301A FOAM FOIL

## HIGHER ENERGY MANAGEMENT

with **ENHANCED STRENGTH**

*EnViro-tuff*®



### 97% Radiant Heat Reflectivity

*EnViro-tuff* radiant barrier dramatically improves energy efficiency of a building by effectively reducing up to 97% of radiant heat.



### Moisture Barrier (WVTR)

*EnViro-tuff* is a good vapour barrier which specially designed to prevent any penetration of water and moisture-laden air, guarding against condensation, rot and mildew.



### UV + Heat Stability

*EnViro-tuff* has the ability to maintain its physical size and properties under extreme temperature changes.



### Energy Saving

*EnViro-tuff* radiant barrier is designed to provide good insulation to improve energy performance of the building and save energy.



### No Wire Netting

*EnViro-tuff* being strong and durable is design without additional supporting material for installation.



### SIRIM Certification

*EnViro-tuff* fire rated series are tested and certified to Sirim Products Listing.



### Acoustic Features

*EnViro-tuff* foam foil range has noise reduction feature.



### Fire Retardant

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



**SAN MIGUEL YAMAMURA  
WOVEN PRODUCTS SDN. BHD.**



**SIRIM**  
ISO 9001 : 2015  
Certification No: QMS 00197

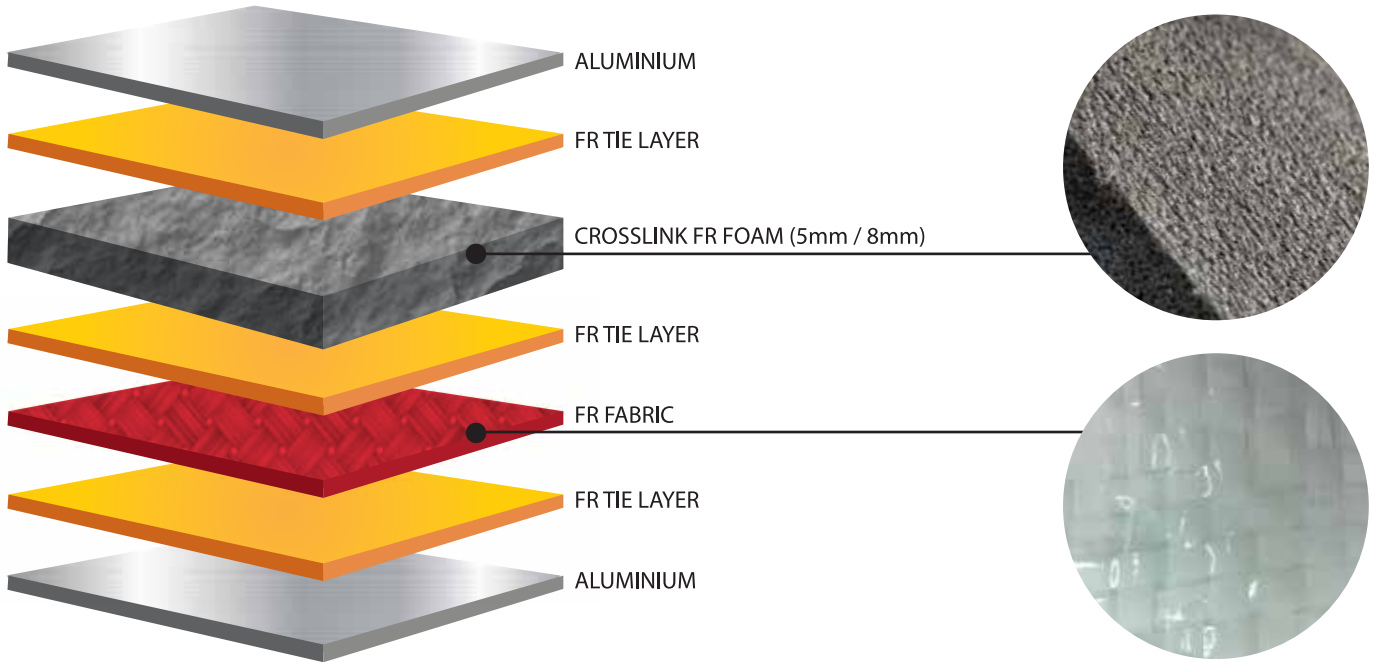


**SIRIM**  
MS 2095 : 2014  
PC002618

**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.



## XFW 301A - 5

CHARACTERISTIC	TEST METHOD	UNIT (SI)	SPECIFICATION
Width	In-house	mm	Nominal ± 5
Length	In-house	m	Nominal ± 1.0%
Grammage	BS EN 965	g/m <sup>2</sup>	354 ± 50
Resistance to Dry Delamination	AS/NZS 4201.1	-	No delamination
Resistance to Wet Delamination	AS/NZS 4201.2	-	No delamination
Shrinkage	AS/NZS 4201.3	%	< 0.5
			< 0.5
Duty Tensile Strength	AS/NZS 1301.448s	kN/m	Extra Heavy > 4.5
			> 4.5
Edge Tear Resistance	TAPPI T470	N	> 80
Vapour Barrier classification	ASTM E 96	MNs/g	Medium < 450
			> 7
Emissivity	ASTM C 1371	Index	Reflective ≤ 0.5
Surface Water Absorbency	AS/NZS 4201.6	-	Unclassified
Thermal Resistance	ISO 8301/MS ISO 8302	M <sup>2</sup> K/w	1.37

## XFW 301A - 8

CHARACTERISTIC	TEST METHOD	UNIT (SI)	SPECIFICATION
Width	In-house	mm	Nominal ± 5
Length	In-house	m	Nominal ± 1.0%
Grammage	BS EN 965	g/m <sup>2</sup>	445 ± 50
Resistance to Dry Delamination	AS/NZS 4201.1	-	No delamination
Resistance to Wet Delamination	AS/NZS 4201.2	-	No delamination
Shrinkage	AS/NZS 4201.3	%	< 0.5
			< 0.5
Duty Tensile Strength	AS/NZS 1301.448s	kN/m	Extra Heavy > 4.5
			> 4.5
Edge Tear Resistance	TAPPI T470	N	> 80
Vapour Barrier classification	ASTM E 96	MNs/g	Medium < 450
			> 7
Emissivity	ASTM C 1371	Index	Reflective ≤ 0.5
Surface Water Absorbency	AS/NZS 4201.6	-	Unclassified
Thermal Resistance	ISO 8301/MS ISO 8302	M <sup>2</sup> K/w	1.58

### FIRE RETARDANT TEST FOR XFW 301A

CHARACTERISTIC	TEST METHOD	SPECIFICATION
Fire Propagation of Material Sub-Index, $i_t$	BS 476 ; Part 6	Pass (<6)
Overall Performance Index		Pass (<12)
Surface Flame Spread Test	BS 476 ; Part 7	Class 1
Fire Resistance Classification		Class 0



**San Miguel Yamamura Woven Products Sdn. Bhd.** 182297-H

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

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