

# BUBBLE FOIL



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.

DESIGNED TO YOUR ADVANTAGE

**foil**<sup>TM</sup>  
EnViro-tuff<sup>®</sup>

REFLECTIONS OF QUALITY AND RELIABILITY



Housing Project

**EnViro-tuff<sup>®</sup>** 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.



Warehouse Project

**EnViro-tuff<sup>®</sup>** 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.



Poultry House Project

**EnViro-tuff<sup>®</sup>** 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

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



### Moisture Barrier (WVTR)

**EnViro-tuff<sup>®</sup>** 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<sup>®</sup>** has the ability to maintain its physical size and properties under extreme temperature changes.



### Tear & Puncture Resistance

**EnViro-tuff<sup>®</sup>** is strong and has high tear resistant feature due to its superior reinforcement.



### No Wire Netting

**EnViro-tuff<sup>®</sup>** being strong and durable is design without additional supporting material for installation.



### Energy Saving

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



### Acoustic Features

**EnViro-tuff<sup>®</sup>** bubble foil range has noise reduction feature.



### Fire Retardant

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



Factory Project



Hotel Resort Project

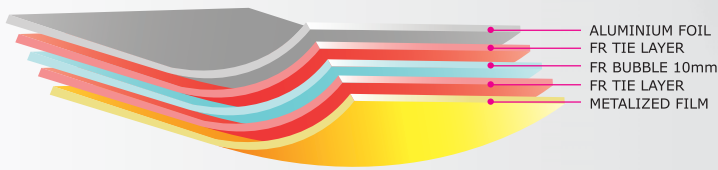


SIRIM  
ISO 9001 : 2008  
Certification No: AR 0385



SIRIM  
Certified To:  
BS 476 : PART 6 : 1989 &  
BS 476 : PART 7 : 1997  
Certification No: LS096501

## S 302 (AL/MPET)



5 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 40m

FIRE RETARDANT TEST FOR S302		
CHARACTERISTIC	TEST METHOD	SPECIFICATION
Fire Propagation of Material Sub-Index, $i_1$	BS 476 ; Part 6	<6
Overall Performance Index		<12
Surface Flame Spread Test	BS 476 ; Part 7	Class 1
Classification of Fire Hazard		Class O

Laminated Roll Specifications	CHARACTERISTIC	TEST METHOD	UNIT (SI)	SPECIFICATION
	Emissivity	Aluminium MPET	ASTM E 408	Index
Grammage		ASTM D 5261	g/m <sup>2</sup>	300 $\pm$ 100
Thickness		In house	mm	2 - 3
Tensile Strength	MD CD	In house	N/50mm	$\geq 170$ $\geq 170$
Elongation	MD CD	In house	%	$\geq 35$ $\geq 30$

## G 302 (AL/MPET)



5 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

FIRE RETARDANT TEST FOR G302		
CHARACTERISTIC	TEST METHOD	SPECIFICATION
Fire Propagation of Material Sub-Index, $i_1$	BS 476 ; Part 6	<6
Overall Performance Index		<12
Surface Flame Spread Test	BS 476 ; Part 7	Class 1
Classification of Fire Hazard		Class O

Laminated Roll Specifications	CHARACTERISTIC	TEST METHOD	UNIT (SI)	SPECIFICATION
	Emissivity	Aluminium MPET	ASTM E 408	Index
Grammage		ASTM D 5261	g/m <sup>2</sup>	345 $\pm$ 50
Thickness		In house	mm	5 - 8
Tensile Strength	MD CD	In house	N/50mm	$\geq 150$ $\geq 130$
Elongation	MD CD	In house	%	$\geq 50$ $\geq 40$



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### Sample of Specification

V-Foil Enviro-tuff ( S302 & G302 ) Fire Retardant Bubble Foil With Aluminium Foil And Metalized Foil Bonded To Bubble Pack With Fiberglass Scrim.

Details in accordance with manufacturer's instructions.