

PAPER 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™

EnViro-tuff®

REFLECTIONS 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

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



Energy Saving

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



UV + Heat Stability

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



Lightweight

EnViro-tuff® is lightweight and strong, thus it makes installation work much efficient.



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.



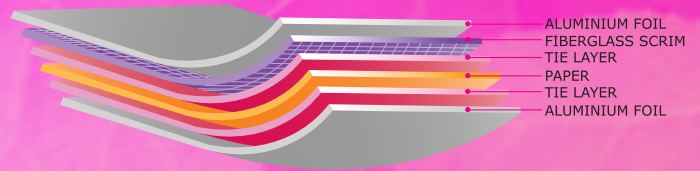
SIRIM
ISO 9001 : 2015
Certification No: QMS 00197



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

P 302A (AL/AL)

P 302A (AL/AL)



6 layers laminate made up of double sided reflective Aluminium foil bonded to paper by special material and further reinforced with fiberglass scrim to form a fire retardant structure.

Standard Roll Size = W 1.25m X L 48m

CHARACTERISTIC		TEST METHOD	UNIT (SI)	SPECIFICATION	
Laminated Roll Specifications	Emissivity	ASTM E 408	Index	≤ 0.05 (97 ± 2%)	
	Grammage	ISO 536	g/m ²	153 ± 10	
	Thickness	In house	μ	179 ± 25	
	Tensile Strength	MD CD	ASTM D 828	N/25mm	≥ 130 ≥ 95
	Elongation	MD CD	ASTM D 828	%	≥ 1.0 ≥ 1.0
	Tear Resistance	MD CD	ISO 1974	N	≥ 1.5 ≥ 2.0

P 302 (AL/MPET)

P 302 (AL/MPET)



6 layers laminate made up of double sided reflective material (Aluminium & Metalized) bonded to paper by special material and further reinforced with fiberglass scrim to form a fire retardant structure.

Standard Roll Size = W 1.25m X L 48m

CHARACTERISTIC		TEST METHOD	UNIT (SI)	SPECIFICATION	
Laminated Roll Specifications	Emissivity	Aluminium MPET ASTM E 408	Index	≤ 0.05 (97 ± 2%) ≤ 0.50 (55 ± 5%)	
	Grammage	ISO 536	g/m ²	153 ± 10	
	Thickness	In house	μ	185 ± 25	
	Tensile Strength	MD CD	ASTM D 828	N/25mm	≥ 150 ≥ 120
	Elongation	MD CD	ASTM D 828	%	≥ 1.5 ≥ 2.5
	Tear Resistance	MD CD	ISO 1974	N	≥ 2.0 ≥ 2.5

P 301 (AL)

P 301 (AL)



4 layers laminate made up of single sided reflective Aluminium foil bonded to paper by special material and further reinforced with fiberglass scrim to form a fire retardant structure.

Standard Roll Size = W 1.25m X L 48m

CHARACTERISTIC		TEST METHOD	UNIT (SI)	SPECIFICATION	
Laminated Roll Specifications	Emissivity	ASTM E 408	Index	≤ 0.05 (97 ± 2%)	
	Grammage	ISO 536	g/m ²	127 ± 10	
	Thickness	In house	μ	155 ± 25	
	Tensile Strength	MD CD	ASTM D 828	N/25mm	≥ 110 ≥ 90
	Elongation	MD CD	ASTM D 828	%	≥ 1.0 ≥ 2.0
	Tear Resistance	MD CD	ISO 1974	N	≥ 1.5 ≥ 2.0

FIRE RETARDANT TEST FOR P 301 & P 302

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 0

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www.smywoven.com

Sample of Specification

V-Foil Enviro-tuff (P 301, P 302 & P 302A)
Fire Retardant Paper Foil With Aluminium Foil And (Aluminium / Metalized) Foil Bonded To Paper by Special Material with Fiberglass Scrim to Form A Fire Retardant Structure.

Details in accordance with manufacturer's instructions.

