

TEST REPORT

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Your Ref.: Application dated 14 Aug 2023

Our Ref.: BP-8500276345/SL

Date: 5/10/2023

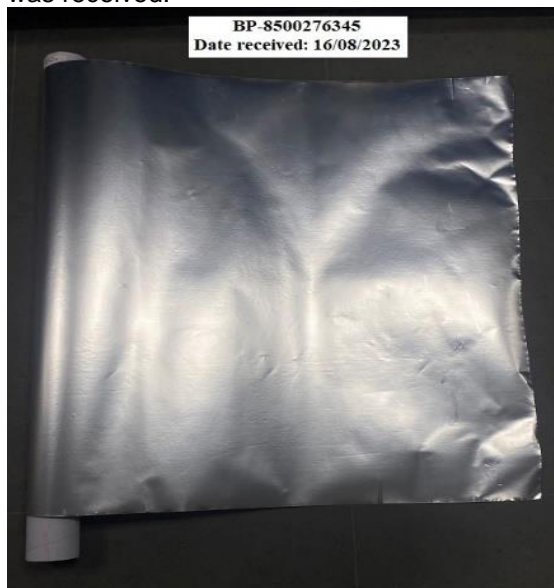
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Subject : Testing of "Ideal Shield 168" submitted by American Bilrite Far East Inc. on 16/08/2023.

Tested For : **American Bilrite Far East Inc.**
17 Joo Koon Crescent
Singapore 629016
Attn: Ms Mereen Poh

Method of Test : 1) 1000 Hours QUV Accelerated Weathering : ASTM G154 : 2016
2) Tensile Strength & Elongation : ASTM D882 : 2018

Description of Sample : One roll of aluminium foil tape labelled "Ideal Shield 168" approximately 90 cm x 100 cm was received.



Results : Refer to Page 2 & 3.



Shirley Lim Suidi
Principal Engineer (PCTD)
Construction Technology Division

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Results:

Table 1: QUV Accelerated Weathering for 1000 Hours

Sample Reference		Ideal Shield 168		
Date of Commencement		22/08/2023		
Test Conditions		8 hr UV at 60±3°C (Black Panel Temperature) and 4 hr condensation at 50±3°C		
Total Exposure Duration		1000 hours		
Light Source		UVA-340		
Irradiance		0.89 W/m²/nm		
Before Test	Date of Inspection	03/10/2023		
	Type of Grey Scale	ISO 105 Part A05		
	Visual Observation	No cracking or delamination	No cracking or delamination	No cracking or delamination
After 1000 hours Exposure	Date of Inspection	03/10/2023		
	Visual Observation	*Grey scale 5.0	*Grey scale 5.0	*Grey scale 5.0

*Grey scale 5 denotes mild or no discolouration; Grey scale 1 denotes severe discolouration.

Table 2a: Tensile Strength (As Received)

Sample Reference		Ideal Shield 168				
Specimen Reference		S1	S2	S3	S4	S5
Date of Test		03/10/2023				
Test Direction		Machine direction				
Gauge Length		50mm				
Crosshead Speed		500 mm / min				
Test Condition		23°C ; 52% R.H.				
Width	(mm)	10.00	10.00	10.00	10.00	10.00
Thickness	(mm)	0.25	0.25	0.25	0.25	0.25
Cross-Sectional Area	(mm²)	2.5	2.5	2.5	2.5	2.5
Maximum Load	(N)	57.37	58.19	50.57	45.89	53.10
Tensile Strength	(MPa)	23.0	23.3	20.2	18.4	21.2
Mean Tensile Strength	(MPa)	21.2				
Elongation at Break	(%)	66	70	170	160	140
Mean Elongation at Break	(%)	120				



Results:

Table 2b: Tensile Strength (After 1000 Hours QUV Accelerated Weathering)

Sample Reference	Ideal Shield 168				
Specimen Reference	S1	S2	S3	S4	S5
Date of Test	03/10/2023				
Test Direction	Machine direction				
Gauge Length	50mm				
Crosshead Speed	500 mm / min				
Test Condition	23°C ; 52% R.H.				
Width (mm)	10.00	10.00	10.00	10.00	10.00
Thickness (mm)	0.25	0.25	0.25	0.25	0.25
Cross-Sectional Area (mm ²)	2.5	2.5	2.5	2.5	2.5
Maximum Load (N)	46.36	41.49	52.36	46.81	48.61
Tensile Strength (MPa)	18.5	16.6	21.0	18.7	19.4
Mean Tensile Strength (MPa)	18.7				
Elongation at Break (%)	10	18	15	33	35
Mean Elongation at Break (%)	18				

