

Material Properties Cirrus GIIIx

Physical

Construction:	2 x aluminised steel sheet with synthetic fibre insert, double formed
Materials:	2 x 0.15 Feran steel, BS6536 AS05. 1mm synthetic fibre
Material Thickness:	1mm
Product Thickness:	4.45mm
Area Density:	3.51 kg/m ²

Thermal

Thermal Conductivity @ 150°C: ⁽¹⁾	0.11 W/mK
Hot Plate Temperature Drop @ 150°C: ⁽²⁾	54°C
Internal Exhaust Test: ⁽³⁾ Horizontal flat sample	

	Source	Receiver
No shield	300°C	144°C
	500°C	274°C
Cirrus GIIIx (New)	350°C	52°C
	566°C	85°C
Cirrus GIIIx (Accelerated salt spray ⁽⁴⁾)	352°C	58°C
	565°C	94°C
Cirrus GIIIx (Dirt impinged ⁽⁵⁾)	349°C	64°C
	552°C	112°C

Surface Emissivity @ 150°C

New	0.14
Heat Aged (@300°C)	0.18
Accelerated Salt Spray ⁽⁴⁾	0.47

Acoustic

Impact Noise: ⁽⁵⁾	
0.6mm Embossed Aluminium	101 dB(A)
Super Cirrus	86.5 dB(A)
Attenuation: ⁽⁷⁾	10.2dB(A)

Mechanical

Stone Impingement: ⁽⁸⁾	4B (50 chips, 1-3 diameter)
180°C Peel Strength:	-
Tensile Strength (x direction ⁽⁹⁾):	83MPa
Tensile Strength (y direction ⁽¹⁰⁾):	85MPa
Tensile Modulus (x direction):	72MPa

Miscellaneous

Recyclability:	Recyclable
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NOTES

- (1) Based on BS874 Pt.2 – Guarded hot plate method
 - (2) As per SAE J1361 – Hot plate test
 - (3) Source – Receiver distance: 25mm, source – shield Hot Face Distance: 12.5mm. Receiver: Black Painted 2.6mm Steel Sample size: 25 x 8 cm. Receiver size: 15 x 10cm. Source running at constant power.
 - (4) ASTM G85 – Salt Water Acetic Acid Test
 - (5) Shield hot face coated with 'standard' dirt mixture at approximately 60gsm
 - (6) Noise generated from supported 30 x 21 cm flat sample by 0.9g steel ball dropped from 50mm
 - (7) As per Iveco 18-8304 Pt. 4.15
 - (8) As per SAE J400
 - (9) Parallel to primary corrugations
 - (10) Parallel to secondary corrugations
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