

## Material Properties NIMBUS LITE

### Physical

Construction:	single aluminium sheet, double embossed
Materials:	0.4mm 1050A 'O' grade aluminium
Material Thickness:	0.4mm
Product Thickness:	3.6mm
Area Density:	1.24 kg/m <sup>2</sup>

### Thermal

Thermal Conductivity @ 150°C: <sup>(1)</sup>	0.27 W/mK
Hot Plate Temperature Drop @ 150°C: <sup>(2)</sup>	72.3°C
Internal Exhaust Test: <sup>(3)</sup> Horizontal flat sample	

	Source	Receiver
No shield	300°C	144°C
	500°C	274°C
Nimbus Lite (New)	355°C	47°C
	591°C	72°C
Nimbus Lite (Dirt Impinged <sup>(5)</sup> )	362°C	48°C
	596°C	72°C

Surface Emissivity @ 150°C	
New	0.28
Accelerated Salt Spray <sup>(4)</sup>	0.25

### Acoustic

Impact Noise: <sup>(6)</sup>	103 dB(A)
Attenuation: <sup>(7)</sup>	4.3 dB(A)

### Mechanical

Stone Impingement: <sup>(8)</sup>	7D (5 chips, 1-3 diameter)
180°C Peel Strength:	NA
Tensile Strength (x direction <sup>(9)</sup> ):	76MPa
Tensile Strength (y direction <sup>(10)</sup> ):	51MPa
Tensile Modulus (x direction):	287MPa

### Miscellaneous

Recyclability:	Fully 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
- Nimbus Lite is a Trade Mark of T & N Composites.

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