

Material Properties NIMBUS GII

Physical

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| Construction: | Double aluminium sheet, double formed |
| Materials: | 0.3 & 0.125mm 1050A 'O' grade aluminium |
| Material Thickness: | 0.43mm |
| Product Thickness: | 5.25mm |
| Area Density: | 1.69 kg/m ² |

Thermal

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

| | Source | Receiver |
|---|--------|----------|
| No shield | 300°C | 144°C |
| | 500°C | 274°C |
| Nimbus GII (New) | 328°C | 50°C |
| | 565°C | 85°C |
| Nimbus GII (Accelerated salt spray ⁽⁴⁾) | 349°C | 55°C |
| | 560°C | 87°C |
| Nimbus GII (Dirt impinged ⁽⁵⁾) | 286°C | 63°C |
| | 493°C | 109°C |

Surface Emissivity @ 150°C

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| New | 0.15 |
| Heat Ages (@300°C) | 0.2 |
| Accelerated Salt Spray ⁽⁴⁾ | 0.34 |

Acoustic

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| Impact Noise: ⁽⁵⁾ | |
| 0.6mm Embossed Aluminium | 101 dB(A) |
| Nimbus | 90.8 dB(A) |
| Attenuation: ⁽⁷⁾ | 6.1dB(A) |

Mechanical

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| Stone Impingement: ⁽⁸⁾ | 6B (10 chips, 1-3 diameter) |
| 180°C Peel Strength: | 1.4Nmm |
| Tensile Strength (x direction ⁽⁹⁾): | 60MPa |
| Tensile Strength (y direction ⁽¹⁰⁾): | 40MPa |
| Tensile Modulus (x direction): | 71.5MPa |

Miscellaneous

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| 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 GII is a Trade Mark of T & N Composites.

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