ULTEM™ R16SG29 SHEET

ULTEM R16SG00 sheet complies with the new pan-European fire safety standard, CEN/TS 45545 ("Fire protection of railway vehicles") at the highest level (Hazard Level 3) for R1 applications (Requirements for interior components) across all four occupational categories at 3mm. ULTEM R16SG29 sheet delivers excellent impact resistance and chemical resistance for easy cleaning, anti-graffiti performance and long useful life.

Based on polyetherimide (PEI) resin, SABIC’s ULTEM™ R16SG29 sheet features inherent flame retardancy and low smoke emission. This amorphous thermoplastic extruded PEI alloy sheet that offers outstanding high heat resistance, high strength, modulus and broad chemical resistance, can be used for railway interior applications. ULTEM R16SG29 sheet also meets United States Federal Rail Administration (FRA 49 CFR Part 238, Appendix B) flammability and smoke emission characteristics for passenger cars and locomotive cabs. In addition, the product complies with toxicity standard Bombardier SMP 800-C. The material may be thermoformed, pressure formed, twin sheet formed, or used in flat or cold formed applications.

Pan-European Fire Safety Norm EN 45545

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<th>ULTEM™ R16SG29 Sheet at 3mm</th>
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<tr>
<td>Spread of Flame</td>
<td>ISO 5658-2</td>
<td>CFE (kW/m²)</td>
<td>minimum</td>
<td>20</td>
<td>20</td>
<td>20</td>
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<td>13</td>
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<td>Heat Release</td>
<td>ISO 5660-1 (50 kW/m²)</td>
<td>MARHE (kW/m²)</td>
<td>maximum</td>
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<td>90</td>
<td>90</td>
<td>90</td>
<td>60</td>
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<td>*---</td>
<td>12.95</td>
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<tr>
<td>Smoke Density</td>
<td>ISO 5659-2 (50 kW/m²)</td>
<td>Ds, 4 [-]</td>
<td>maximum</td>
<td>600</td>
<td>300</td>
<td>150</td>
<td>600</td>
<td>300</td>
<td>150</td>
<td>600</td>
<td>480</td>
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<tr>
<td>Smoke Density</td>
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<td>300</td>
<td>1200</td>
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<td>Toxicity</td>
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<td>0.09</td>
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<table>
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<tr>
<th>Classification</th>
<th>R1 HL3</th>
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R1 Requirements for Interior Components
R5 Requirements for Back shell and Base shell of passenger seats
R3 Lighting

Results are based on tests done by SABIC at the independent laboratories.
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