

FR EPDM Sheeting EN45545-2 Material Datasheet

Product Code: RC0365

Product Description

Our flame retardant EPDM sheeting is manufactured in order to fully conform to EN45545-2 European Railway standards. This particular sheeting material is completely halogen free. It features excellent ozone resistance as well as moderate resistance to dilute acids and bases. It also provides low smoke release and low toxicity.

Technical Specification



Available In -



Full Rolls

Cut to strip

Bespoke
Gaskets

| Properties | Test Method | Values |
|--|---|--------------------------|
| Product | - | Flame Retardant Sheeting |
| Compound | - | EPDM |
| Hardness (Shore A) | ASTM D2240 | 70° ± 5° |
| Density (Specific Gravity) | ASTM D297 | 1.45 g/cm ² |
| Tensile Strength | ASTM D412 | 70 kg/cm ² |
| Elongation at Break | ASTM D412 | 400% |
| Tear Resistance | ASTM D624 | 20 kg/cm |
| Compression Set (24hrs @ 70°C) | ASTM D395 Method B | 25% |
| Working Temperature Range | - | -30°C to + 100°C |
| Fire Resistance | BS 476, PART 7 VEHICLE CAT. LA ACC. TO BS 6853 | CLASS 2 |
| Ozone Resistance (200 PPHM 96hrs @ 40°C) | ASTM D 1149 | No Cracks |
| Heat Ageing (168hrs @ 85°C) | | |
| Change in Hardness | ASTM D573 | +10° |
| Change in Tensile Strength | ASTM D573 | +15 / -15% |
| Change in Elongation at Break | ASTM D573 | +10 / -30% |

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| Properties | Test Method | Values |
|------------------------------|-------------|--------|
| Chemical Resistance | | |
| Dilute Acids and Bases | - | Good |
| Concentrated Acids and Bases | - | Medium |
| Oils | - | Medium |

Warrington Fire Test for Determination of Burning Behaviour of Flooring

Part 1 Determination of the Burning Behaviour Using a Radiant Heat Source

BS EN ISO 9239-1 2010

Objective: To Determine the performance of the following product when tested in accordance with BS EN ISO 9293-1: 2010

| Generic Description | Product Reference | Thickness | Weight Per Unit Area |
|---|--|----------------------|--------------------------|
| Rubberised Floor Covering For Use in Railway Coaches & Metro Coaches Adhered to a Birch Plywood Substrate | ICF/MD/SPEC-354 (Flooring Only) | 14.89MM | 9.80KG/M ² |
| Individual Components Used to Manufacture Composite | | | |
| Rubber Flooring | ICF/MD/SPEC-354 | 2mm | 2.5-3.4kg/m ² |
| Adhesive | Adhesive Fevicol SR 998 IS & Fevicol Hardner C | Unwilling to provide | Unwilling to provide |
| Plywood | Birch Plywood (WBP Grade) | 12mm | Unable to provide |

Test Results:

Orientation of test specimens: No Direction
 Average critical radiant flux = 8.05W/M²
 Average smoke development = 28.92% Min

Warrington Fire Test for Determination of Burning Behaviour of Flooring

Part 2 Determination of Optical Density by a Chamber Method and "T11:02" (Gas Analysis in the Smoke Box ISO, Using FTIR Technique)

EN 45545-2: 2013 + A1: 2015

Objective: To Assess the results of tests performed in accordance with methods T04, T10.03 and T11.02 as defined in EN45545-2: 2013 + A1:2015 at and irradiance level of 25W/m² with a pilot flame, on specimens of a product and to provide and opinion of compliance with the requirements, as defined in EN 45545-2: 2013 + A1: 2015.

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| Plywood | Birch Plywood (WBP Grade) | 12mm | Unable to provide |

Opinion: We consider the results of the tests confirmed in reports referenced 413221 and 413222 to the test methods detailed above demonstrate that the product as tested, complies with requirements, R10 (detailed in table 5 of EN 45545-2: 2013 + A1: 2005) for a HL1, HL2 and HL3 hazard level classification.

Warrington Fire Test for Determination of Burning Behaviour of Flooring

Part 2 Determination of Optical Density by a Chamber Method and "T11:02" (Gas Analysis in the Smoke Box ISO, Using FTIR Technique)

EN 45545-2: 2013 + A1: 2015
Test Methods T10.03 & T11.02

Objective: To determine the toxic fume and optical density produced from the following product when tested in accordance with methods T10.03 and T11.02 as defined in BS EN 45545-2:2013 + A1: 2015 at an irradiance level of 25kW/M² with a plot flame.

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|---|--|----------------------|--------------------------|
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Summary of Test Results:

The average Ds(max) value determined within 10 minutes was 137

The average CIT value at four minutes was 0.10

The average CIT value at eight minutes was 0.23

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