

## 南京宇航橡胶有阻公司 NANJING YUHANG RUBBER CO.LTD

Manufacturers · Designers · Distributors

## FR EPDM Sheeting EN45545-2 Material Datasheet

Product Code: RC0365

## **Product Description**

Our flame retardant EPDM sheeting is manufactured in order to fully confrom 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.



Gaskets

## **Technical Specification**

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 <sup>2</sup>	
Tensile Strength	ASTM D412	70 kg/cm <sup>2</sup>	
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/M²
Individual Components Used to Manufacture Composite			
Rubber Flooring	ICF/MD/SPEC-354	2mm	2.5-3.4kg/m <sup>2</sup>
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/M <sup>2</sup>
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/m<sup>2</sup> 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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**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/M<sup>2</sup> with a plot flame.

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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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