

# **THERMOBREAK<sup>®</sup> RT**

**INSULATION FOR RAILWAY VEHICLES**



Closed cell, physically crosslinked insulation designed for demanding fire and smoke requirements in railway vehicles.

Meets highest Hazard Level (HL3) requirements under EN 45545-2.

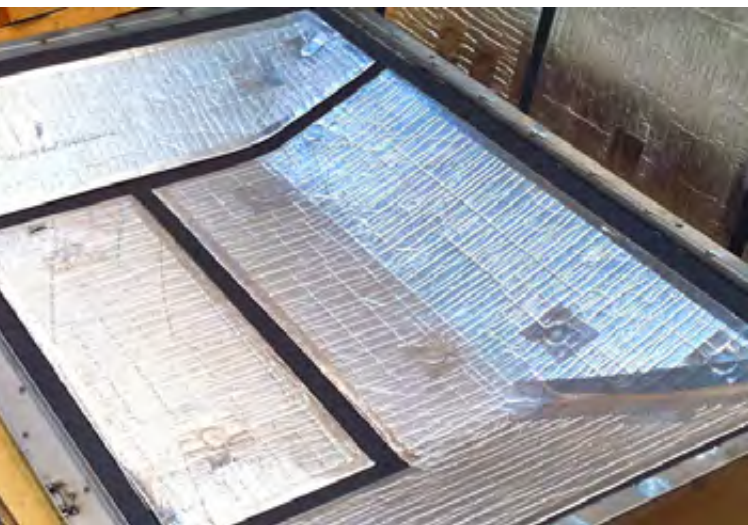
**SEKISUI**

**FOAM**  
**INTERNATIONAL**  
Global Foam Solutions

**PHYSICALLY**  
**CROSSLINKED**  
SEKISUI TECHNOLOGY

# THERMOBREAK<sup>®</sup> RT

## INSULATION FOR RAILWAY VEHICLES



### Technical Data

**Material:** Physically (irradiation) crosslinked closed cell polyolefin foam with factory applied reinforced foil and transfer adhesive backing

Nominal Density:	25kg/m <sup>3</sup> (foam core only)
Thermal Conductivity: (ASTM C518)	0.032 W/m/°K (@ 23° C mean temperature)
Water Vapour Permeability: (ASTM E96)	8.19 x 10 <sup>-15</sup> kg/Pa.s.m (0.029 mg.m/N.h)
Water Vapour Permeance:	3.3 x 10 <sup>-4</sup> g/MN.s
Water Absorption by Volume: (JIS K6767)	<0.1% v/v (0.00038g/cm <sup>2</sup> )
Permeability Resistance Factor:	μ > 20,000
Resistance to Fungi: (ASTM G21)	Zero Growth
Ozone Resistance:	Excellent
UV Resistance:	Excellent
Operating Temperature:	-80° C ~ + 100° C

### Product Description

- Flexible, closed cell polyolefin foam insulation with factory applied reinforced aluminium foil and high temperature adhesive.
- Meets European, ASTM and British Standards for fire and smoke toxicity in railway vehicles
- Achieves Hazard Level 3 under EN45545-2

### Benefits

- Extremely low thermal conductivity and vapour permeability
- Maximum energy savings and long term performance
- Complies with most international railways standards for insulation materials
- Anti Microbial
- VOC Green Star compliant
- Available in a wide range of thicknesses

### Fire & Smoke Behaviour

ISO 5658 Part 2 Smoke Toxicity	COMPLIES (EN 45545-2 R1, HL3 RATING)	
ISO 5659 Part 2 Smoke Density	COMPLIES (IMO MSC 61(67) Part 2) COMPLIES (EN 45545-2 R1, HL3 RATING) Satisfies max allowable concentrations for the following combustion gases: CO, HCl, HBr, HF, HCN, NO <sub>x</sub> , SO <sub>2</sub>	
ISO 5660 Part 1 Heat Release Rate	COMPLIES (EN 45545-2 R1, HL3 RATING)	
BS476 Parts 6 & 7	CLASS 0	
ASTM E162	Smoke Density	COMPLIES (NFPA 130)
ASTM E662	Smoke Toxicity	COMPLIES (NFPA 130)
BS 6853 Annex B	Smoke Toxicity	COMPLIES (R < 1.0)
IMO MSC 61(67) Part 2	Smoke Toxicity	COMPLIES
UL 94	Horizontal Burn	APPROVED (HF-1)

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