

OPTIM-R® E

Product safety information

Although the REACH Regulation does not require a Safety Data Sheet (SDS) to be provided for OPTIM-R® E products, as they are considered articles under the Regulation, this Product Safety Information Sheet has been prepared to reflect the primary SDS requirements as set out in Annex II to Regulation (EC) No 1907/2006 (REACH), and amended by Commission Regulation (EU) No 2020/878 as they might reasonably apply to articles.

1 Identification of the product and of the company / undertaking

1.1 Product identifier

Kingspan OPTIM-R® E.

1.2 Relevant identified uses of the product

Flat roofing application.

1.3 Details of the supplier of the Product Safety Information Sheet

Kingspan Insulation Limited, Pembridge, Leominster, Herefordshire, HR6 9LA, UK

Tel: +44 (0) 1544 388 601

Fax: +44 (0) 1544 388 888

Email: info@kingspaninsulation.co.uk

Website: www.kingspaninsulation.co.uk

1.4 Technical Support Contact Details

Great Britain

Tel: +44 (0) 1544 387 382

Email: technical@kingspaninsulation.co.uk

Ireland

Tel: +353 (0) 42 975 4297

Email: technical@kingspaninsulation.ie

2 Hazards identification

2.1 Classification

There are no known hazards associated with the normal handling or use of this insulation product and accordingly, there are no applicable Global Harmonised System (GHS) hazard statements.

2.2 Label elements

In line with the lack of classification, there are no specific labelling requirements.

2.3 Other hazards

Care should be taken to avoid puncturing or rupture of the outer barrier film. In case of rupture and exposure of the core, please refer to sections 6 and 8 of this sheet.

Exposure of the panels to very high temperatures may result in the emission of smoke and decomposition / combustion of products.

3 Composition information

Kingspan OPTIM-R® E panels comprise a rigid vacuum insulation panel with a microporous core which is evacuated, encased and sealed in a thin, gas-tight envelope. Kingspan OPTIM-R® E panels are encapsulated in an elastomeric polyurethane coating for increased robustness and easier handling on-site.

4 First Aid measures

4.1 Description of First Aid measures

Inhalation:	Remove person to fresh air.
Skin:	Wash carefully using soap and water or a proprietary cleanser to remove.
Eye:	Flush immediately with copious amounts of water. Do not rub eyes.
Ingestion:	No information available.
Other:	Seek medical attention if any discomfort persists.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation:	Possible irritation or soreness in throat and nose.
Skin:	Temporary irritation or rash.
Eye:	Temporary irritation or inflammation.
Ingestion:	No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Get medical attention if needed. Treat symptomatically.

5 Firefighting measures

5.1 Extinguishing media

Suitable media:	Waterspray (fog), foam, CO ₂ or dry chemical.
Unsuitable media:	Not applicable.

5.2 Special hazards arising from the product

It is prudent to take precautions against ignition, fire spread and combustion products. Do not inhale fumes. Fire fighters should attack the fire according to the combustible materials present and use breathing apparatus. Cardboard and plastic packaging materials are combustible. Store away from all possible sources of ignition.

5.3 Advice for firefighters

Firefighters should use self-contained breathing apparatus and saturate burning foam with water from a spray nozzle. Dust is classified as weakly explosive (St. Class 1).

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

In the event of rupture of the outer layers and exposure of the core material, any powder released should be cleaned up by a method that avoids / minimises the creation of airborne dust. In the event of high dust levels, use approved respiratory protective equipment (see section 8).

Amorphous silica has a drying action on skin. Dust produced from the Kingspan OPTIM-R® E core may, like any other dust, aggravate pre-existing upper respiratory and lung diseases.

6.2 Environmental precautions

Do not release collected dust to drains or waterways (see section 13 for Disposal considerations).

6.3 Methods and material for containment and cleaning up

Prevent excessive dust generation. If dust does accumulate use vacuum cleaner or dampen with water spray to prior to sweeping up.

6.4 Reference to other sections

See section 8 for PPE.

See section 13 for Disposal considerations.

7 Handling and storage

7.1 Precautions for safe handling

The Kingspan OPTIM-R® E panels should not be cut or penetrated. The substrate must be clean, dry and level, and free of sharp objects or edges.

Kingspan OPTIM-R® E should not be used in association with solvent-based adhesive systems.

7.2 Conditions for safe storage, including any incompatibilities

Store in original packing in a location free from any ignition hazard such as open flames, cutting and welding torches, high surface temperature electric heaters and other forms of direct radiant heat. Keep product protected from the elements. Kingspan OPTIM-R® E should be stored inside a building and raised off the floor. Ensure stability of stack and provide adequate aisle space for access between stacks.

8 Exposure controls / personal protection

8.1 Control Parameters

In the event of rupture of the envelope, the core contents of amorphous silica, silicon carbide and polyester fibres may be released. Note the following workplace exposure limits for these materials:

Workplace exposure limits

Great Britain

EH40/2005 Workplace exposure limits, as amended. Published by the Health and Safety Executive, UK.

Ireland

Chemical Agents and Carcinogens Code of Practice 2021. Issued by the Health and Safety Authority of Ireland.

Substance	Long-term exposure limit (8-hr TWA reference period)	
	Inhalable dust (mg.m ⁻³)	Respirable dust (mg.m ⁻³)
Silica, amorphous	6.0	2.4
Silicon Carbide	10.0	4.0 (3.0*)

* Respirable dust for silicon carbide for Ireland.

8.2 Exposure Controls

Inhalation:	Approved, properly fitting, respirators with the appropriate nominal protection factor.
Hands:	Gloves, moisturising or barrier creams may prevent the drying of the skin in contact with silica dust.
Eyes:	Goggles or safety glasses with side shields. When installing a product with reflective facings in very bright or sunny weather it is advisable to wear UV protective sunglasses or goggles.
Skin:	Overalls that are loose fitting at the neck and the wrist. When installing a product with reflective facings in bright sunlight, it is advisable to consider skin protection from UV.
Other:	The products are non-load bearing. Access and work should not be carried out on unsupported boards.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	TBD.
Odour:	TBD.
pH:	Not relevant in solid form.
Melting point:	Not applicable.
Flash point:	Not applicable.
Insulation density:	TBD.
Solubility in water:	Not applicable.
Auto-ignition temperature:	TBD
Other data:	None.

9.2 Other Information

No additional chemical or physical properties to report.

10 Stability and reactivity

10.1 Reactivity

Unreactive during normal use (see section 7).

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Not reactive.

10.4 Conditions to avoid

None specified.

10.5 Incompatible materials

None specified.

10.6 Hazardous decomposition products

The plastic materials used to encapsulate Kingspan OPTIM-R® E cores and as reinforcing filaments will begin to decompose at approximately 150 °C. The thermal decomposition of products will vary with temperature and oxygen availability but could include oxides of carbon.

11 Toxicological information

11.1 Information on toxicological effects

There are no known adverse health effects arising from handling or using Kingspan OPTIM-R® E insulation as supplied.

11.2 Information on other hazards

No additional information available.

12 Ecological information

12.1 Toxicity

Kingspan OPTIM-R® E cores are manufactured using inert materials that remain stable over a considerable time. No eco-toxicological studies exist for these products.

12.2 Persistence and degradability

TBD.

12.3 Bioaccumulative potential

None anticipated.

12.4 Mobility in soil

No anticipated mobility.

12.5 Results of PBT and vPvB assessment

Testing inappropriate for articles.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

TBD.

13 Disposal considerations

13.1 Waste treatment methods

Waste insulation is non-hazardous.

Generally, Kingspan OPTIM-R® E cores may be disposed of at a normal landfill site that has been licensed for industrial waste. It is prudent to ensure that the panels are appropriately bagged and sealed prior to disposal. The cores may be recycled.

With respect to disposal, observe usual safety precautions with polythene bags, wrapping and packaging.

Clean, undamaged product may be re-used.

Waste product, including packaging, should be disposed of in accordance with the Waste Hierarchy – Reduce, Re-Use, Recycle. Refer to national waste handling legislation.

14 Transport information

Read this section in conjunction with section 7.

Ensure security of load and where necessary sheeting / roping should be used.

It is recommended that mechanical lifting equipment is used when moving bulk quantities.

15 Regulatory information

15.1 Safety, health and environmental regulations / legislation specific for the product

Not applicable.

15.2 Chemical safety assessment

No assessment required.

16 Other information

The information contained here is offered in good faith and is based on our current knowledge.

We thereby maintain the right to update and amend this document as necessary.

The information should not be taken as a guarantee of specific performance and users should make their own assessment and make all applicable personnel aware accordingly.

The wearing of appropriate safety equipment is strongly recommended as a precaution and the product should only be used in its design application. Please refer to sections 7 and 8 for safe handling and appropriate safety measures.

Users should visit the Kingspan Insulation website or contact the Kingspan Insulation Technical Service Department to ensure information is current.

This data sheet does not constitute a workplace assessment.

The information provided represents the state of our knowledge regarding this material at the date of its publication.

The information provided does not constitute a product specification and no warranty expressed or implied is hereby made.

The information relates only to the specific material designated when used in applications it has been designed for. This information may not be valid for such material used in combination with any other materials or in any other processes, unless specified in the text.

Contact details

Great Britain

Kingspan Insulation Ltd
Pembroke | Leominster
Herefordshire | HR6 9LA

T: +44 (0) 1544 388 601
E: info@kingspaninsulation.co.uk
www.kingspaninsulation.co.uk

For individual department contact details please visit
www.kingspaninsulation.co.uk/contact

Ireland

Kingspan Insulation Ltd
Castleblayney | County Monaghan

T: +353 (0) 42 979 5000
E: info@kingspaninsulation.ie
www.kingspaninsulation.ie

For individual department contact details please visit
www.kingspaninsulation.ie/contact



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