

# OPTIM-R®

## Product safety information

These products are articles not intended to release substances and do not contain substances of very high concern and as such are exempt from the requirements of REACH Regulation (EU) 2020/878.

### 1 Identification of the product and of the company / undertaking

#### 1.1 Product Identifier

Kingspan OPTIM-R®.

#### 1.2 Relevant identified uses of the product

Flat roofing application and flooring

#### 1.3 Details of the supplier of the Product Safety Information Sheet

Company Name: Kingspan Insulation Limited

Company Address: Pembridge, Leominster,  
Herefordshire, HR6 9LA, UK.

Tel: +44 (0) 1544 388 601

Fax: +44 (0) 1544 388 888

Email: [info@kingspaninsulation.co.uk](mailto:info@kingspaninsulation.co.uk)

Website: [www.kingspaninsulation.co.uk](http://www.kingspaninsulation.co.uk)

#### 1.4 Emergency Telephone Number

Tel: +44 (0) 1544 387 382

Email: [technical@kingspaninsulation.co.uk](mailto:technical@kingspaninsulation.co.uk)

### 2 Hazards Identification

#### 2.1 Classification

There are no known hazards associated with the normal handling or use of this insulation product.

#### 2.2 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

The core of Kingspan OPTIM-R® contains no respirable fibres and therefore falls outside the scope of European Community Directive Amendment 97/69/EC.

Core: Encapsulated in polyester non-woven fabric and covered with a multi-layered barrier film.

### 4 First aid measures

#### 4.1 Description of first aid measures

Inhalation: Possible irritation or soreness in throat and nose. Remove affected person to fresh air.

Skin: Temporary irritation or rash. Rinse affected areas with water.

Eyes: Temporary irritation or inflammation. Flush immediately with copious amounts of water. Do not rub eyes.

Ingestion: No information available.

Other: Seek medical attention if discomfort persists.

### 5 Firefighting measures

#### 5.1 Extinguishing media

Suitable media: Water spray (fog), foam, CO<sub>2</sub> 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.

#### 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® core may, like any other dust, aggravate pre-existing upper respiratory and lung diseases.

### 6.2 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® panels should not be cut or penetrated. The substrate must be clean, dry and level, and free of sharp objects or edges.

## 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.

| Substance        | Long-term exposure limit<br>(8-hr TWA reference period) |  |
|------------------|---|--|
|                  | Inhalable dust<br>(mg.m <sup>-3</sup> )                 | Respirable dust<br>(mg.m <sup>-3</sup> ) |
| Amorphous Silica | 6.0   | 2.4                                      |
| Silicon Carbide  | 10.0  | 4.0                                      |

##### Germany

German "List of MAK and BAT Values 1998" for maximum concentrations at the workplace.

| Substance        | Long-term exposure limit<br>(8-hr TWA reference period) |  |
|------------------|---|--|
|                  | Inhalable dust<br>(mg.m <sup>-3</sup> )                 | Respirable dust<br>(mg.m <sup>-3</sup> ) |
| Amorphous Silica | 4.0   | N/A                                      |
| Silicon Carbide  | N/A   | 1.5                                      |

## 8.2 Exposure Controls

|                         |   |
|-------------------------|---|
| Respiratory protection: | Approved, properly fitting, respirators with the appropriate nominal protection factor.   |
| Hand protection:        | Gloves, moisturising or barrier creams may prevent the drying of the skin in contact with silica dust.  |
| Eye protection:         | 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 protection:        | 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:                | Silver or white foil covered panels   |
| Odour:                     | None.                                 |
| pH:                        | Not applicable.                       |
| Melting point:             | Not applicable.                       |
| Flash point:               | Not applicable.                       |
| Insulation density:        | Typically 180-210 kg/m <sup>3</sup> . |
| Solubility in water:       | Not applicable.                       |
| Auto-ignition temperature: | (Envelope materials) 355 °C           |
| Oxidising properties:      | Not applicable.                       |
| Other data:                | None.                                 |

### 9.2 Other information

No additional chemical or physical properties to report.

## 10 Stability and reactivity

The plastic materials used to encapsulate Kingspan OPTIM-R® 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.

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## 11 Toxicological Information

### 11.1 Information on toxicological effects

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

### 11.2 Information on other hazards

No additional information available.

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## 12 Ecological information

### 12.1 Toxicity

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

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## 13 Disposal considerations

### 13.1 Waste treatment methods

Waste insulation is non-hazardous.

Generally, Kingspan OPTIM-R® 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.

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.

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## 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.

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## 15 Regulatory information

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

#### United Kingdom

The Health and Safety at Work etc. Act 1974.

The Control of Substances Hazardous to Health Regulations.

HSE EH40/05 Workplace Exposure Limits (as Amended 2011).

MDHS 14 General methods for the gravimetric determination of respirable and total inhalable dust.

#### Germany

Deutsche Forschungsgemeinschaft: MAK und BAT Werte Liste 1998 – Maximale Arbeitsplatzkonzentrationen und Biologische Arbeitsstofftoleranzwerte (List of MAK and BAT Values 1998 – Maximum Concentrations and Biological Tolerance Values at the Workplace).

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## 16 Other information

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

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

The information should not be taken as 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.

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

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.

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# Contact details

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## Great Britain

**Kingspan Insulation Ltd**

Pembridge | Leominster

Herefordshire | HR6 9LA

T: +44 (0) 1544 388 601

E: [info@kingspaninsulation.co.uk](mailto:info@kingspaninsulation.co.uk)

[www.kingspaninsulation.co.uk](http://www.kingspaninsulation.co.uk)

For individual department contact details please visit

[www.kingspaninsulation.co.uk/contact](http://www.kingspaninsulation.co.uk/contact)

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## Ireland

**Kingspan Insulation Ltd**

Castleblayney | County Monaghan

T: +353 (0) 42 979 5000

E: [info@kingspaninsulation.ie](mailto:info@kingspaninsulation.ie)

[www.kingspaninsulation.ie](http://www.kingspaninsulation.ie)

For individual department contact details please visit

[www.kingspaninsulation.com/ie/contact](http://www.kingspaninsulation.com/ie/contact)



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