

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 (EC) No 1907/2006.

Hazards Identification

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

Composition

The core of Alumasc VTherm Vacuum Insulated System, powered by Kingspan OPTIM-R®, contains no respirable fibres and therefore falls outside the scope of European Community Directive Amendment 97/69/EC.

The core of the Vacuum Insulation Panel is encapsulated in polyester non-woven fabric and covered with a multi-layered barrier film

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.

Fire-Fighting Measures

It is prudent to take precautions against ignition, fire spread and smoke hazard.

Suitable media: Waterspray (fog), foam, CO2 or dry chemical.

Un-suitable media: Not applicable.

Fire fighters 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).

Accidental Release Measures

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 Alumasc AVTherm Vacuum Insulated System core may, like any other dust, aggravate pre-existing upper respiratory and lung diseases.

Handling and Storage

Keep in original packaging until ready for installation. Kingspan OPTIM-R® should be stored inside a building and raised off the floor. Ensure stability of stacks and follow guidance instructions on packaging.

Exposure Controls / Personal Protection

When installing Alumasc VTherm Vacuum Insulated System, powered by Kingspan OPTIM-R®, in very bright or sunny weather it is advisable to wear UV protective sunglasses or goggles.

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

“EH 40/2005” (Amended December 2011) Published by the Health and Safety Executive, UK.

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

GERMAN “List of MAK and BAT Values 1998” for maximum concentrations at the workplace

Substance	Long-term exposure limit (8-hr TWA reference period)	
	Inhalable dust / mg.m ³	Respirable dust / mg.m ³
Amorphous Silica	4.0	n/a
Silicon Carbide	n/a	1.5

Personal Protective Equipment

Where sufficient control of exposure to airborne dust cannot be achieved by engineering measures alone, or if irritation problems arise, the following protective equipment may be necessary:

- **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.
- **Skin Protection:** Overalls that are loose fitting at the neck and the wrist.



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/m³.

Solubility: Not applicable.

Auto-ignition temperature: (Envelope materials) 355°C.

Oxidising properties: Not applicable.

Other data: None.

Stability and Reactivity

The plastic materials used to encapsulate Alumasc VTherm Vacuum Insulated System cores, powered by Kingspan OPTIM-R®, 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.

Toxicological Information

There are no known health effects arising from handling or using Alumasc VTherm Vacuum Insulated System insulation as supplied.

Ecological Information

Alumasc VTherm Vacuum Insulated System cores are manufactured using inert materials that remain stable over a considerable time. No eco-toxicological studies exist for these products.

Disposal Considerations

Generally, Alumasc VTherm Vacuum Insulated System 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.

Transport Information

No special precautions are required.

Regulatory Information

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).

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.

