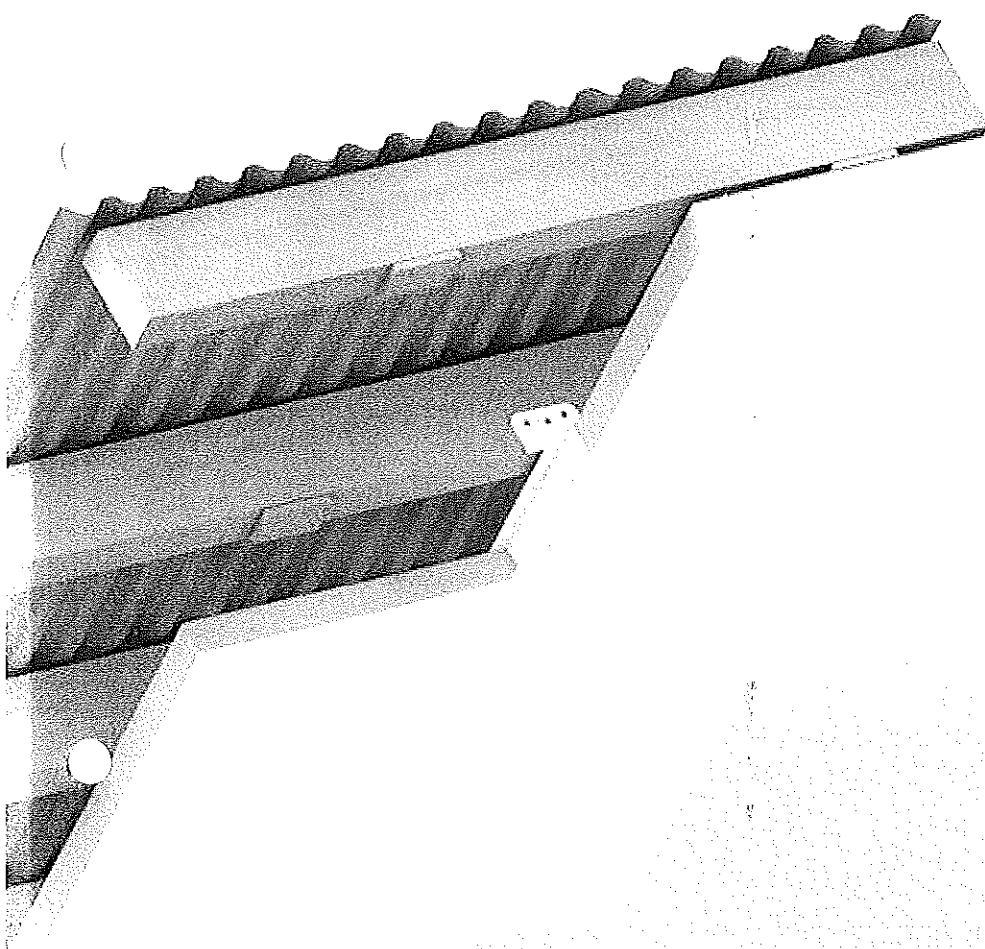




Selthaan® Insulation for agricultural buildings

HIGH PERFORMANCE INSULATION FOR AGRICULTURAL BUILDINGS



- High performance rigid thermoset insulation – thermal conductivities as low as 0,023 W/m-K
- Smart and light appearance for attractive finishing
- Lightweight
- Rot and fungus proof
- Easy to install
- Durable retention of insulation value
- Available in custom lengths
- Easy to clean
- Chemically resistant against most alkalis, acids and salts

Fibre-free
Core


Kingspan®

Low Energy –
Low Carbon Buildings

Introduction

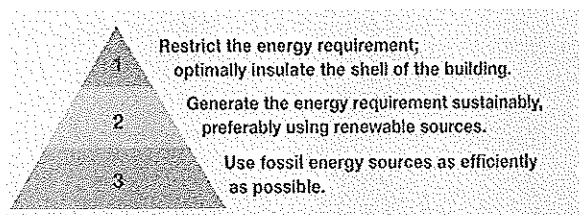
Why insulate?

More than a third of all CO₂ emissions are caused by having to keep buildings at a specific temperature. As a result, the energy performance requirements for residential and utility buildings are only becoming stricter. This trend demands new, modified construction methods and improved materials.

Trias energetica

According to the 'Trias Energetica' concept, proper insulation is the most effective method for reducing energy consumption in buildings and it forms the basis of the Energy Performance Standard (EPS). A well-insulated building can lead to a decrease in energy consumption of as much as two thirds.

The model on which 'Trias Energetica' is based was developed by Delft University of Technology. It separates structural engineering and electrical and mechanical measures in the first place to facilitate the calculation of the minimal energy requirement of a building and then subsequently to generate the energy requirement as efficiently as possible. The Trias Energetica process consists of three steps:



High-quality insulation for agricultural buildings from Kingspan Insulation

In the construction of agricultural buildings, specific demands are imposed on the insulation of livestock accommodation, dairy rooms, storage and sorting areas, depots and other buildings and spaces. Achieving a constant temperature with maximum control of the indoor climate with minimal resources and effort is a fine art. In the storage of arable and horticultural products, preventing wastage caused by humidity, decay and disease is vitally important. For this purpose, **Kingspan Selihaan*** insulating boards can be integrated in systems in which factors such as ventilation and the way in which a building is constructed play a role. Kingspan supplies various types of insulating board for the construction of agricultural buildings. Special matching auxiliary materials make Kingspan insulation board completely user-friendly.

Services

Calculations

Kingspan Insulation disposes of a computer model that can calculate R_C and U values in a trice. In this way, the performance of different types of insulation materials can be compared in a range of structures varying from flat roofs to wall cavities and from floors to timber-frame exterior walls.

Detail drawings

For the post-completion energy performance of the building, designing and making structural connections that comply with the applicable regulations is vitally important. In collaboration with a number of certified firms of consulting engineers, Kingspan Insulation has developed detail drawings for different building elements and R_C and U values. For more information, contact our Technical Services department.

Psi value calculator

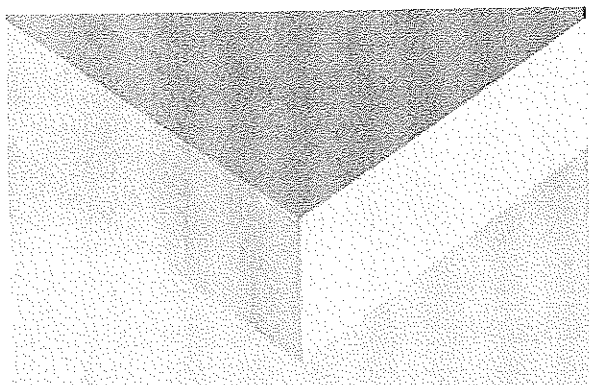
A large amount of energy loss is caused by cold bridges in detail connections. The installation of high-quality insulation material reduces energy loss to a minimum. Kingspan Insulation has precisely calculated the Ψ value that can be achieved for most common detail connections.

You can contact our Technical Services department for passive house details, engineering advice, R_C and U value calculations, dew point calculations, installation advice, etc.

Visit our website for more information:

www.kingspaninsulation.eu

Kingspan **Selthaan**® Alu



Description

The **Kingspan Selthaan**® Alu insulation board has a rigid thermoset polyisocyanurate (PIR) fibre free insulation core, faced on both sides with PE coated aluminium craft foil.

Application

This board is designed for the thermal insulation of agricultural buildings.

Standard dimension

Kingspan Selthaan® Alu is available as standard with straight sides and the following dimensions: 3000 x 1200 mm (thickness 25 mm) and 5000 x 1200 mm (thickness 30 - 50 mm). On request boards are also available in lengths ranging from 1000 to 12000 mm and with rebate or saw cut.

For other dimensions and edge finishing, please contact our Customer Service department.

Technical Data

Property	Value
Euro Class (EN 13501-1)	F (tested 'as placed on the market')
Density	min. 30 kg/m³
Compressive strength at 10% compression (EN 826)	≥ 100 kPa
Closed cells	min. 90%
Temperature resistance PIR	Short duration: max. 200°C < 1 hour Long duration: -50°C to +110°C

Thermal Properties

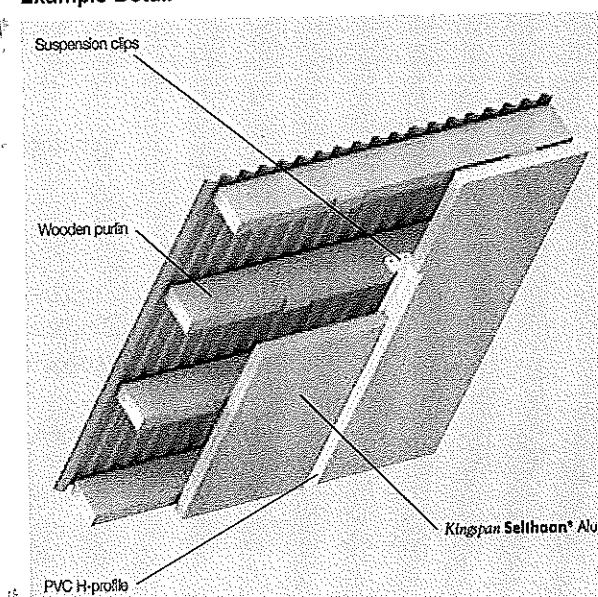
Thermal Conductivity

Isolation thickness (mm)	λ_D -value (W/m·K) (EN 13165)
< 80	0,029
≥ 80	0,028

Thermal Resistance

Isolation thickness (mm)	R_D -value (m²·K/W)
25	0,85
30	1,05
40	1,40
50	1,75
60	2,10
80	2,90
100	3,60

Example Detail



Certification

All products in the **Kingspan Selthaan**® assortment are produced in accordance with the highest possible quality demands and have CE marking.

- CE marking



Contact Details

Customer Service

Contact our sales department for price offers, orders, documentation and samples. You can reach us from Monday till Friday from 08.00 until 17.30 hrs.

Tel: +31 (0) 543 543 210
Fax: +31 (0) 344 675 215
email: info@kingspaninsulation.eu

Sales Office

Kingspan Insulation B.V.
P.O. Box 6175
4000 HD Tiel
Netherlands

Technical Service

Kingspan Insulation has one of the most technically advanced support services in the industry offering a full spectrum of advice, free of charge on both newbuild and refurbishment projects.

The Kingspan Insulation technical team are continually updating their knowledge on building trends, construction methods and the development of building materials to ensure the advice and services provided are always one step ahead.

Services Available:

- R and U-value calculations.
- Advice on product selection and product data for the full range of Kingspan Insulation products.
- Installation and fixing advice on all applications and products.
- Specification and construction advice.
- Tapered Roofing Design service.

email: techline@kingspaninsulation.eu

The physical and chemical properties of the products of Kingspan Insulation B.V. represent average values, that have been obtained during generally accepted testing methods, submitted to normal product tolerances. Kingspan Insulation B.V. reserves the right to amend product specifications without prior notice. The information, technical details, fixing instructions etc. included in this literature are handed out in good faith and are consistent with the application targeted by Kingspan Insulation B.V. The images in this document are only meant to give a global impression of the looks of the product and show one out of many applications possible. Kingspan Insulation B.V. does not guarantee that the shown applications are in accordance with valid (local) regulations. Recommendations for use should be verified as to the suitability and compliance with actual requirements, specifications and any applicable laws and regulations. For other applications or conditions of use, Kingspan Insulation B.V. offers a Technical Advisory Service the advice of which should be sought for uses of Kingspan Insulation products that are not specifically described herein. Please check that your copy of the literature is current by contacting the Kingspan Insulation Marketing Department.



Kingspan Insulation B.V.

Lorentzstraat 1, 7102 JH Winterswijk, Netherlands
P.O. Box 198, 7100 AD Winterswijk, Netherlands

www.kingspaninsulation.eu

Export countries from the Netherlands comprise all European countries (including all of the Russian Federation, Ukraine and Belarus) except for Benelux, the UK, Ireland, Gibraltar, Malta, the Nordics, Germany, France, Poland, the Czech Republic and Slovakia.

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