

Isonat® - Technical Information

Description

Isonat® is a natural fibre insulation materials made from hemp and recycled cotton fibres. The fibres are held together by the addition of a thermoplastic binder. Isonat® is treated with a simple, inorganic non-reacting salt compound to provide fire resistance. Isonat® is authorised for use throughout the EU by the Centre Scientifique et Technique Du Batiment (CSTB) in France. Isonat® is available in the following specifications:

Thickness (mm)	Widths (mm)	Length (mm)	Pack Size (batts/pack)	Pallet Size (packs/pallet)	Pallet Size (m ² /pallet)
100	600	1200	6	8	34.56
50	600	1200	12	8	69.12
100	400	1200	6	12	34.56
50	400	1200	12	12	69.12

Design

Isonat® can be used in loft spaces, within walls and under floors. Isonat® has many technical, performance and environmental benefits over conventional mineral fibre and cellular plastic insulants.

Physical Properties

The properties of Isonat® are given in the following table.

Composition	Value	Units	Standard
Hemp	42.5%		
Recycled cotton	42.5%		
Polyester	15.0%		
Product Specification			
Thermal Conductivity	0.039	W/m ² .K	BS EN 12664 : 2001
Density	35	kg/m ³	BS EN 1602 : 1997
Fire protection rating	Euroclass E		EN ISO 11925-2
Water vapour transmission	4381	mg/(m ² .hPa)	BS EN 12086 : 1997
Acoustic properties	Helps meet requirements of Approved Document E		

Moisture Absorption and Release

Isonat® can absorb and release moisture without degrading and without significant loss of thermal resistance. This gives it a margin of safety against the formation of interstitial condensation. It is suitable for use in 'breathing' wall construction.

Resistance to Passage of Sound

Isonat® is effective in reducing the transmission of airborne and impact sound through the building envelope (see separate data sheets).

Resistance to Fire

Isonat® is treated with a fire retardant to provide a Euroclass E fire rating and conforms to the requirements of the Building Regulations.

For further information and ordering please contact:

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Durability

In common with wood, flax fibres are based on cellulose. Therefore, prolonged exposure to water will cause decay. When properly installed Isonat® will retain its loft and thermal performance for the life of the building.

Installation

Cutting: Isonat® insulation can be cut with a sharp knife. To cut use a straight edge and cut onto a board.
Fixing: Isonat® batts should be firmly pressed into place between studs to ensure a snug fit with no gaps. Square cut edges of batts should be fitted tightly together without gaps.

Site Notes

Isonat® should be stored under cover and clear of the ground until ready for use.

Health and Safety

Hemp and cotton fibres are harmless. Therefore Isonat® can be installed without gloves or protective clothing. Isonat® is not irritating to the skin, eyes or respiratory system.