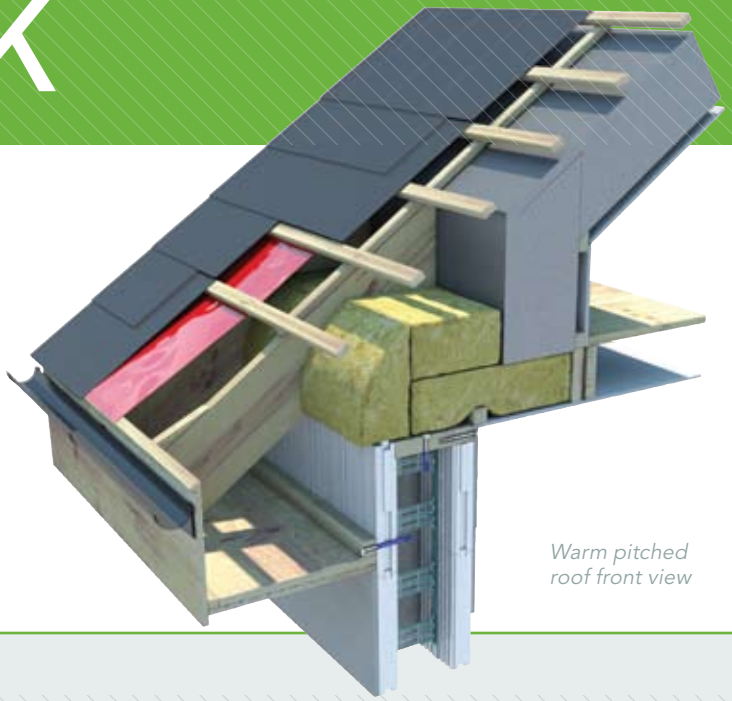
KORELOCK

KORE Lock is an insulation system for use in:

- Warm pitched roofs
- Cold pitched roofs



Warm pitched roof front view

Description

KORE Lock is a high performance expanded polystyrene insulation system that is very simple and safe to install. The system provides a complete tight fitting insulation envelope eliminating thermal bridging. The unique cut in the KORE Lock variable width panels allows the product to be compressed slightly for easy insertion between the rafters. Once in place the KORE Lock panels return to their normal size and remain securely in place. KORE Linear Drylining Panels are fitted on top of the rafters in warm roof applications and below the rafters in cold roof applications.

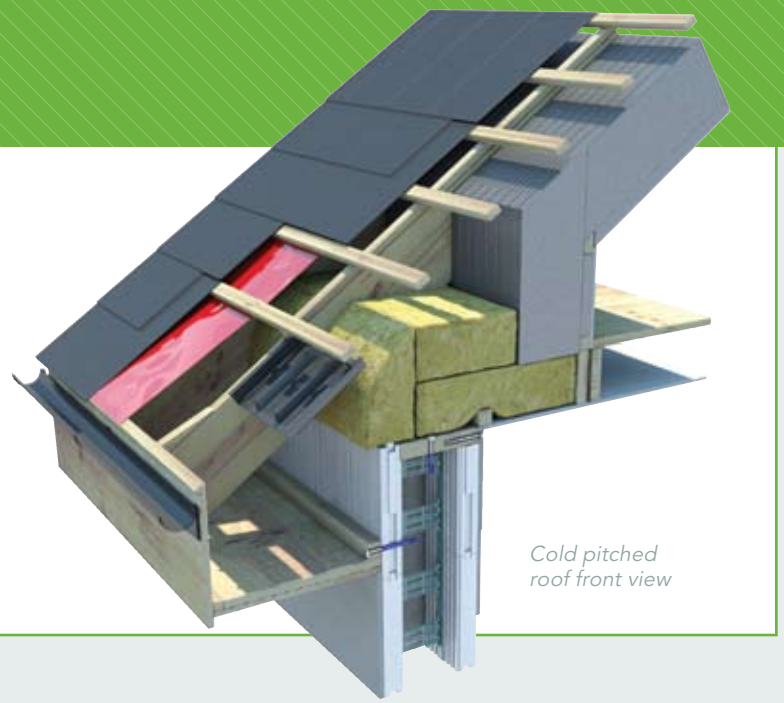
KORE Advantages

Excellent thermal properties, very simple and safe to install, variable width adjustment, tight fit reduces thermal bridging and facilitates necessary ventilation.

U-Values

The U-Value of the KORE Lock System is only limited by the depth of insulation installed. The more insulation that is installed the better the U-Value achieved. Contact Airpacks technical department for further U-Value calculations. (Calculation Method I.S. EN ISO 6946.)

		Cold Roof Application	Warm Roof Application
Thermal Conductivity	**KORE Linear Drylining Panels Thickness (mm)**	**KORE Lock Panels Thickness (mm)**	**KORE Lock Panels Thickness (mm)**
		U-Value 0.20 W/m²K	
0.037	25	165	155
0.034	25	150	140
0.030	25	125	115
		U-Value 0.16 W/m²K	
0.037	25	230	220
0.034	25	210	200
0.030	25	190	180



Cold pitched roof front view

Physical Properties

Properties	Units	Density	
	kg/m³	15–20 Standard	20–25 Heavy
White EPS			
Thermal Conductivity	W/mK	0.037	0.034
Compressive Strength	kPa	>95	>211
Bending Strength	kPa	>171.70	>377.10
Dimensional Strength	DS(n)	2	2
Silver EPS			
Thermal Conductivity	W/mK	0.030	0.028
Compressive Strength	kPa	>95	>211
Bending Strength	kPa	>171.70	>377.10
Dimensional Strength	DS(n)	2	2

Dimensional Table

	Variable width panels	KORE Linear Drylining Panels
Length	1200mm	1200mm
Thickness	To suit rafter design	25mm upwards in 5cm increments
Width	To suit rafter design centre with compression of 25mm in design width	2400mm and 2700mm

Installation

Before installation ensure that the cavity wall insulation has been continued to roof height to engage with the roof insulation. The insulation must be continuous to provide a complete envelope to reduce the risk of thermal bridging and condensation.

KORE Lock Cold Roof

- Commence by fitting KORE Lock variable width panels between each rafter, following completion of cold cladding, keeping panels flush with the underside face of the rafter and closely butted at the ends.
- Ensure the necessary clear 50mm air space between the insulation and the sarking felt is maintained. If an approved breather membrane is used as a tile underlay the requirement for a clear 50mm air space may be ignored and filled with insulation.
- Fix the first row of KORE Lock panels to the roof line at the junction with the vertical stud walls, beginning with the first slot. Secure in position by nailing through batten and insulation into the rafters. Repeat the procedure until the entire area is insulated.
- Continue installing KORE Lock Panels to vertical studding and ceiling collars to completion.
- Apply KORE Linear Drylining Panels to the underside of the rafters with suitable fixings, ensuring joints are tightly sealed. Face with minimum 500 gauge polyethylene vapour barrier.

KORE Lock Warm Roof

- Commence by fitting KORE Lock variable width panels between each rafter, keeping panels flush with the upper side of the rafter and closely butted at the ends.
- Place the KORE Linear Drylining Panels on top of the rafters ensuring joists are tightly sealed.
- Secure the panels by fixing the appropriate sized counter battens through the panels to the rafters.
- Lay an approved weatherproof breather membrane over the counter battens. Allow the membrane to sag as normal between the battens. This will facilitate proper drainage and ventilation.
- Fit tiling battens to the rafters and tile the roof in accordance with BS 5534.
- On the underside of the rafters fit an appropriate vapour control layer and plasterboard sheets.

CERTIFICATION

KORE Lock successfully received IAB Certification proving compliance with Building Regulations 1997–2007. Certificate Number 05/0235.