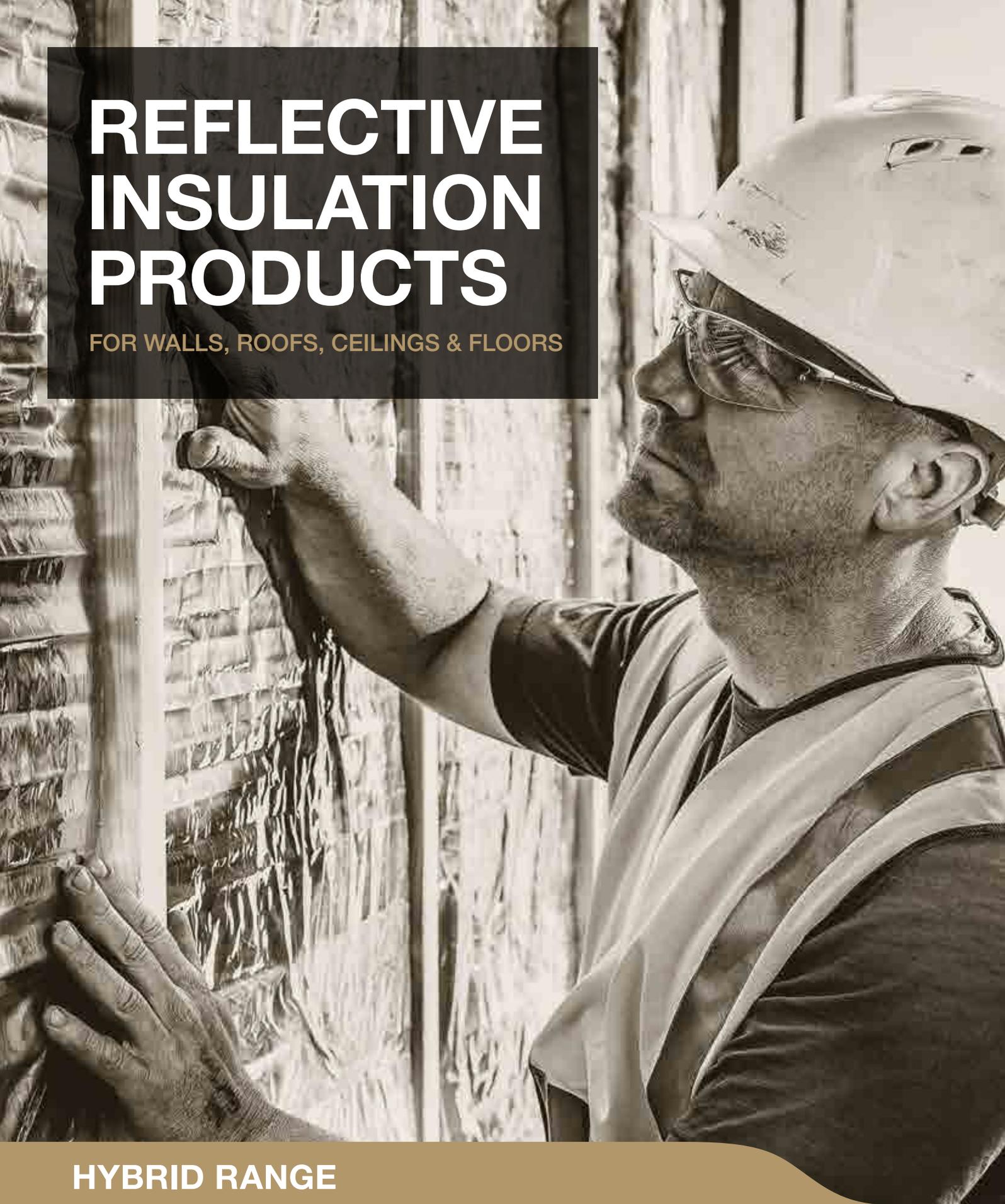


REFLECTIVE INSULATION PRODUCTS

FOR WALLS, ROOFS, CEILINGS & FLOORS



HYBRID RANGE



ACTIS
TOMORROW'S INSULATION TODAY

HControl Hybrid



Use on the warm side of any insulation material, behind the internal finish in roofs, walls and ceilings.

HCONTROL HYBRID is a thin multifoil insulation product with a built-in vapour control function and an unrivalled thermal performance.

HCONTROL HYBRID provides dual performance within a single product: a vapour control layer and insulation, allowing a reduction in the number of installation steps whilst reducing the thickness of the main insulation to achieve the same required U-Value.

It can be used in conjunction with any type of insulation.



VAPOUR BARRIER



2 AIR VOIDS OF 20MM



45MM +/-5MM



AIRTIGHT



LIGHT



AREA



SPACE SAVING



DUAL PERFORMANCE



PROPERTY	TEST METHOD	DECLARED VALUE
Thickness	EN 823	45mm +/- 5mm
Weight/m ²	EN 1849-2	880 g/m ²
Length	EN 1848-2	6.25m
Width		1.6m
DECLARED THERMAL PERFORMANCE		
R Value of HCONTROL HYBRID + 2 air cavities after ageing	EN 16012	Horizontal Heat Flow 3.20m².K/W Upward Vertical Heat Flow 2.80m².K/W
Core R-value		1.90m².K/W
Declared Emissivity after ageing		0.06
TENSILE STRENGTH		
Longitudinal direction	EN 12311-1 & EN 13859-1 Annex C	>300 N/50mm
Transversal direction		>200 N/50mm
Elongation (Longitudinal)		>20%
Elongation (Transversal)		>5%
RESISTANCE TO TEARING, NAIL SHANK		
Longitudinal direction	EN 12310-1 & EN 13589-1 Annex B	>150 N
Transversal direction		>150 N
JOINT STRENGTH	EN 12317 - 2	>50 N/50mm
WATER VAPOUR TRANSMISSION		
Permeability (W)	EN 1931 set C	7.51 10 ⁻¹³ Kg/m ² .s.Pa
Vapour Resistance (Z)		≥1000 MNs/g
Diffusion eq.air layer thickness (Sd)		≥200mm
WATERTIGHTNESS	EN 1928 Method A	Watertight (W1) to 2 kPa
AIR PERMEABILITY	EN 12114	Airtight
DURABILITY AFTER AGEING	EN 13984	Test successful
REACTION TO FIRE	NPD (No performance determined)	

Hybris



Use on timber frame or masonry walls, pitched roofs and ceilings.

HYBRIS is an innovative and unique insulation product providing an excellent thermal performance.

HYBRIS is a reflective insulation product based on a honeycomb structure made of shaped polyethylene foams glued to aluminium coated polyethylene foils.

Its high thermal performance is provided by a special structure composed of a large number of low emissivity cavities, protected from dust and excessive air movement. Moreover, the low emissivity external films provide additional thermal resistance, when associated with air cavities.



THERMAL PERFORMANCE



HIGH PERFORMANCE AIR GAP



THICKNESS 50 - 205 MM



AIRTIGHT



VAPOUR BARRIER



ACOUSTIC PERFORMANCE



LIGHT



DUAL PERFORMANCE



PROPERTY	TEST METHOD	DECLARED VALUE
Thickness	EN 823	50 to 205mm
Weight/m ³	EN 1602	9.5 kg/m ³
Length	EN 822	1200mm
Width		1145mm
DECLARED THERMAL PERFORMANCE		
Thermal conductivity λ_D	EN 16012	0.033 W/m.K
Declared core thermal resistance		1.50 m ² .K/W (50mm) to 6.20 m ² .K/W (205mm)
Emissivity (inner/outer) after ageing		0.06/0.10
TENSILE STRENGTH (BEFORE AND AFTER AGEING)		
Longitudinal direction	EN 1608	>45 kPa
Transversal direction		>45 kPa
RESISTANCE TO TEARING, NAIL SHANK (BEFORE AND AFTER AGEING)		
Longitudinal direction	EN 12310-1 part 1	>150 N
Transversal direction		>150 N
WATER VAPOUR TRANSMISSION		
Permeability (W)	EN 1931	<2,3 E-12 Kg/m ² .s.Pa
Vapour Resistance (Z)		450 MNs/g
Diffusion eq.air layer thickness (Sd)		>90m
WATERTIGHTNESS	EN 1928 Method A	Watertight, W1
AIR PERMEABILITY	EN 12114	Airtight
HEAT CAPACITY	2300 JK/Kg.k	
REACTION TO FIRE	NPD (No performance determined)	

Boost[®] Hybrid



Use on the cold side of the building fabric in roofs and walls.

BOOST[®] HYBRID is a thin multifoil insulation product with a built-in breather membrane function and an exceptional thermal performance.

BOOST[®] HYBRID provides dual properties within a single product: A breathable membrane and insulation, allowing a reduction in the number of installation steps whilst reducing the thickness of the main insulation to achieve the same required U-Value. It can be used in conjunction with any type of insulation.



VAPOUR RESISTANCE

2 AIR VOIDS OF 20MM



35MM +/-5MM

AIRTIGHT

LIGHT



AREA



SPACE SAVING



DUAL PERFORMANCE



PROPERTY	TEST METHOD	DECLARED VALUE
Thickness	EN 1849-2 under 50 Pa load	35mm +/- 5mm
Weight/m ²	EN 1849-2	650 g/m ²
Length	EN 1848-2	6.7m
Width		1.5m
DECLARED THERMAL PERFORMANCE (INNER/OUTER SIDE)		
R Value of BOOST [®] HYBRID + 2 air cavities after ageing	EN 16012	Horizontal Heat Flow 2.40m².K/W Upward Vertical Heat Flow 2.10m².K/W
Core R-Value		1.35 m².K/W
Declared Emissivity (inner/outer side) after ageing		0.05 / 0.31
TENSILE STRENGTH		
Longitudinal direction	EN 12311-1 & EN 13859-1/2 Annex A	>300 N/50mm
Transversal direction		>200 N/50mm
Elongation (Longitudinal)		>20%
Elongation (Transversal)		>10%
RESISTANCE TO TEARING, NAIL SHANK		
Longitudinal direction	EN 12310-1 & EN 13859-1/2 Annex B	>150 N
Transversal direction		>150 N
WATER VAPOUR TRANSMISSION		
Vapour Resistance (Z)	EN 12572 set C	0,55 MNs/g
Vapour Resistance of external layer		0,25 MNs/g
Diffusion eq.air layer thickness (Sd)		≤ 0,11m
WATERTIGHTNESS	EN 1928 Method A	Watertight, W1
AIR PERMEABILITY	EN 12114	< 0.030 m ³ / (m ² x h x 50Pa)
FLEXIBILITY AT LOW TEMP	EN 1109	-30/30 °C/ ø30mm
DIMENSIONAL STABILITY	EN 1107	+80°C/6h < 1%
REACTION TO FIRE	NPD (No Performance Determined)	

BENEFITS OF THE HYBRID PRODUCTS

DUAL PERFORMANCE



- Each Hybrid product combines insulation, air tightness, moisture resistance and reflective properties.
- ACTIS Hybrid products are resistant to air infiltration and create a barrier to thermal losses through convection.
- All components are moisture resistant.
- They take advantage of radiation effects due to the very low emissivity of their external films.
- Whatever the climatic conditions, the thermal performance of the Hybrid product range can be depended upon and is durable.

DUAL TESTING, IN A LABORATORY & IN-SITU



Hybrid is a range of innovative insulation products that are fully tested both under laboratory and real conditions of use, so their performance is guaranteed.

- Laboratory testing according to **EN 16012**
- Real life testing according to **ISO 9869**

A UNIQUE PATTERN

Easy to recognise, each hybrid product has a copper coloured external film with a very low emissivity, **as low as 0.05**.

Their additional resistance value can be gained from the air voids facing these highly reflective films.

- The foils' low emissivity is protected from degrading by surface lacquering.
- The foils reflect **up to 95%** of the solar thermal radiation outside the building, contributing to summer comfort.

LABC, LABSS & NHBC ACCEPTED



- The 3 Hybrid products have been awarded **LABC** and **LABSS Registered Detail**.
- They are also **NHBC accepted** when used in accordance with their certification.

USE SEPARATELY OR AS A SYSTEM

All hybrid products can be used separately or together to provide a total insulation system in roofs, walls and ceiling applications.

Together, they can achieve the best U-Value requirements with a minimal thickness compared to standard solutions.

USER FRIENDLY



- A+ classification for internal air quality according to ISO 16 000.
- Clean: Hybrid products don't generate **dust or fibre**.

QUICK AND EASY TO INSTALL



TIME SAVING

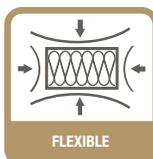
Hybrid products reduce the installation time without changing installation procedures.



FLEXIBLE

HControl Hybrid & Boost^{TR} Hybrid flexible properties

Enable fitting to any uneven surface, allowing a continual insulation, thus offering a high quality installation without air leakages.

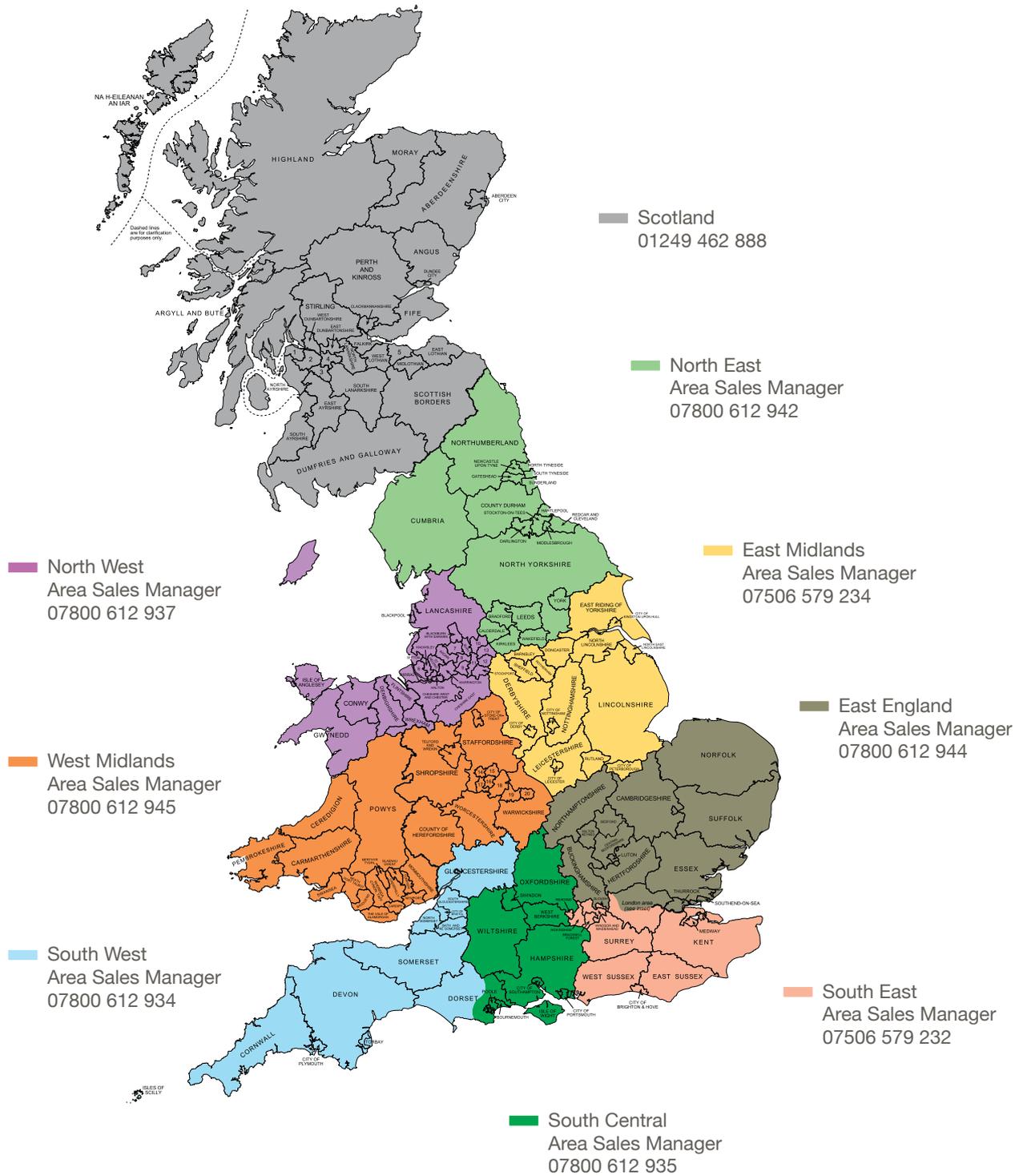


FLEXIBLE

Hybris flexible properties

Easily installed between rafters, timber studs or within floor joists. HYBRIS is held in place by compression and doesn't slump down.

YOUR CONTACTS FOR MORE INFORMATION



U-VALUE SIMULATOR

Discover a unique tool to get a quick simulation of your project by visiting Hybrid.insulation-actis.com

VISIT OUR WEBSITE

Please visit www.insulation-actis.com for more details.

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Watch installation videos on **ACTIS Insulation UK**

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