

ORANGEGUIDE

FABRICATED INSULATION PRODUCTS



insulation made to your specification



U-SPEC is the leading independent insulation fabricator in the UK and has been providing the widest range of ready-made products and fabrication services to the insulation industry for nearly 15 years.

WHAT WE DO

We manufacture and supply a range of products for applications in:

HVAC AND INDUSTRY, COMMERCIAL AND DOMESTIC CONSTRUCTION (new-build and renovation) and **INSULATED PACKAGING** for temperature-controlled cabinets and freight-forwarding.

Our products offer solutions to the three key performance requirements of these demanding markets – **THERMAL INSULATION, ACOUSTIC PERFORMANCE** and **FIRE PROTECTION**.

FABRICATION AND CONVERSION SERVICE

We convert or alter standard production-line insulation products to a format in tune with specific end user requirements. This could be applying a facing (e.g. alu foil), lamination (e.g. to a rigid board), encapsulation (e.g. acoustic ceiling pads) or cutting and shaping (e.g. into profiled strips). U-Spec works with all types of products - glass and rock mineral wool, foam plastics & polyethylene foam, ceramic fibres & many others.

Our capabilities include:

Anything laminated - boards - any insulant to any rigid board, example thermal laminates, soffit liners, cold store panels etc.

Anything laminated - quilts - such as dense polymeric to mineral wool (multi-lag type of products).

Anything encapsulated or totally enclosed - ceiling pads, loft insulation.

Anything faced or covered - insulation slabs or rolls, pipe sections, decorative acoustic wall panels – all with any covering – normally tissue, aluminium foil, or glass fabric.

Anything cut to size & shape (vertical, horizontal, angular) - trapezoidal wedges, bevelled lags, lamella fire breaks (for EWI applications).

Anything cut or slotted – such as slotted phenolic boards to bend round curved surfaces - also routing and tongue-and-grooving.

Our Offer:

Quick reaction to enquiries and demands from branches in the distribution and merchant sector.

Short lead time.

No minimum order restrictions.

OUR OWN KEY PRODUCTS:

Cavity Barriers

Multi-purpose products providing fire, thermal and acoustic performance in concealed wall cavities. Tested to give minimum 1 hour fire-resistance.



Lamella Mat

Usually made from 45 kg/m³ stone wool slabs with Bright Class 0 (BCO) foil facing, but we can supply Lamella Mat in other densities, typically 60kg/m³.



Pipe Section Mat

A stone wool slab into which we cut grooves, to enable it to bend round curved surfaces. As with lamella, we apply a BCO foil facing, or on request, other facings.



SuperLoft Blanket

Itch-free loft insulation consisting of glass wool rolls which we totally encapsulate in polythene.



INDEX

Product	Sector	Main Application	Page
Lamella Mat	HVAC/Industry	Thermal	4
Pipe Section Mat	HVAC/Industry	Thermal	5
Acoustilag	HVAC/Industry	Acoustic	6
U-Tube	HVAC/Industry	Acoustic	6
Acoustek Wrap	HVAC/Industry	Acoustic	6
Sonic Liner – Internal Lining Of Ducts	HVAC Ducts	Acoustic	7
Mass Barriers	Various	Acoustic	7
Faced Products	Various	Thermal/Acoustic	8
Encapsulated Products	Various	Thermal/Acoustic	10
Ceiling Pads – Polythene Enclosed	Education/Commercial	Acoustic	10
Encapsulated Insulation Rolls	Residential/Commercial	Thermal	10
Loft Decking	Residential/Commercial	Thermal	16
Soffit Liner	Commercial	Thermal/Fire	12
Acoustic Panels	Education/Commercial	Acoustic	14
Trapezoidal Wedges	Industrial Buildings	Thermal/Acoustic/Fire	15
Laminated Products	Various	Thermal/Acoustic	16
Lead Lined Plasterboard	Medical	Radiation Barrier	16
Lamella Fire Breaks	External Wall Insulation	Fire	17
Upstand Board for Parapet Walls	Roofing	Thermal	17
Cavity Barriers	Residential/Commercial	Thermal/Fire/Acoustic	18
Slotted Slabs	HVAC/Industry	Thermal	19
Overview Of U-Spec Fabrication Facilities			19

U-Spec have a policy of continual innovation and improvement, which could result in changes to product specifications listed in this guide. Please check with us before placing orders.

U-SPEC LAMELLA MAT

U-Spec Lamella Mat is a strong but resilient and flexible mattress consisting of strips of stone wool insulation, cut from 45kg/m³ slabs and assembled at right angles to the original plane of manufacture to increase compression resistance, and bonded to a reinforced Bright Class O aluminium foil facing.

The product can be manufactured at any density and with a choice of facings, on request.

Application - Typically in HVAC and Industrial installations such as large or non-standard pipework, trace-heated pipework, vessels and air conditioning ductwork. U-Spec Lamella Mat can be used to satisfy the requirements of BS5422:2009. Guidance on fitting can be found in BS5970:2001.

Benefits of U-Spec Lamella Mat

- **No minimum order quantities**
- **Short lead time**
- **Wide range of densities**
- **Wide range of alternative facings – including black and white foil**

Factory-applied Facings

Bright Class O Aluminium Foil as standard.

External-grade foil weatherproof covering - U-Spec Lamella Mat pre-covered with multi-layer laminated aluminium foil with zero permeability, reduces installation times and thus application costs.

Other facings and colours – other coverings and facings are available to order, including a dense polymeric membrane for applications where high levels of acoustic insulation are required. See Acoustek Wrap on p.6.

Dimensions – standard 45kg/m³ lamella mat

Thickness	Length	Width	Roll Area
25mm	10.00m	1200mm	12.00m ²
30mm	8.15m	1200mm	9.78m ²
40mm	6.00m	1200mm	7.20m ²
50mm	5.00m	1200mm	6.00m ²
60mm	4.00m	1200mm	4.80m ²
75mm	4.00m	1200mm	4.80m ²
80mm	3.00m	1200mm	3.60m ²
100mm	2.50m	1200mm	3.00m ²



Maximum Service Temperature - 350°C, but to maintain the integrity of the factory-applied covering, the surface temperature of the product should not exceed 80°C.

Thermal Conductivity

Mean Temperature °C	Lambda, λ W/m.K
50	0.043
100	0.053
150	0.065
200	0.079
250	0.098
300	0.121
350	0.151

Packaging

U-Spec Lamella Mat is supplied in roll form in polythene packs, which are designed for short-term protection only. For long-term protection on site, the product should be stored indoors, or under cover and off the ground and should not be left permanently exposed to the elements before installation.

U-SPEC PIPE SECTION MAT

U-Spec Pipe Section Mat is a high-density slab which has been machine-grooved in one face to enable close fitting application to large diameter curved surfaces. The distance between the grooves is accurately calculated to suit specific diameters and ensure consistent product curvature compatible with the surface of the intended application. U-Spec Pipe Section Mat is supplied in segments, and the number of segments required to complete each circumference varies, and is dependent upon both the diameter of the intended surface and on product thickness.

The product is available with a choice of facings, including Bright Class O Reinforced Foil and, for external use, pre-covered with external-grade foils and other coverings.

Application - Thermal and acoustic insulation for medium to large-bore pipework, ductwork, chimney stacks, tanks and vessels. Depending upon the choice of facing, the product is suitable for both internal and external use.

U-Spec Pipe Section Mat can be used to satisfy the requirements of BS5422:2009. Guidance on fitting can be found in BS5970:2001.

Benefits of U-Spec Pipe Section Mat

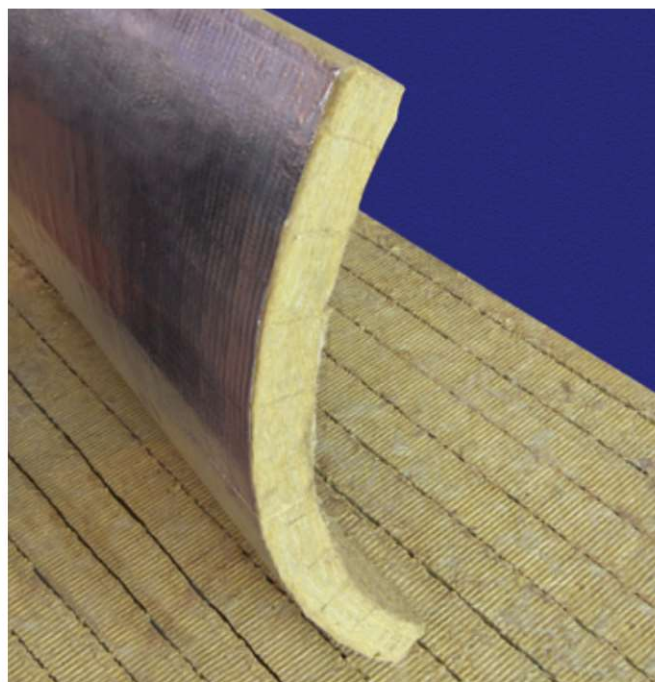
- **No minimum order quantities**
- **Short lead time**
- **Wider range of sizes - available for pipes and vessels up to 5 metre diameter, and in thicknesses up to 150mm**
- **Wide range of alternative facings – including black and white foil**

Factory-applied Facings

Bright Class O Aluminium Foil as standard.

External-grade foil weatherproof covering - U-Spec Pipe Section Mat pre-covered with multi-layer laminated aluminium foil with zero permeability, reduces installation times and thus application costs.

Other facings and colours – other coverings and facings are available to order, including a dense polymeric membrane for applications where high levels of acoustic insulation are required.



Dimensions

Outside Diameter of Pipe	Insulation thickness range	Length – along the pipe	Density
Up to 5m	40mm – 150mm	Up to 1.8m	80 kg/m ³ – 200 kg/m ³ but 140 kg/m ³ as standard

Operating Temperature - The base rock wool insulation on U-Spec Pipe Section Mat can be used up to continuous operating temperatures of 700 °C at 140kg/m³. To maintain the integrity of the factory-applied covering the surface temperature of the product should not exceed 80 °C.

Thermal Conductivity

Based on rock wool density of 140 kg/m³

Mean Temperature °C	Lambda, λ W/m.K
50	0.040
100	0.044
150	0.050
200	0.057
250	0.064
300	0.088
350	0.104

Packaging

U-Spec Pipe Section Mat is supplied flat-packed in polythene packs, which are designed for short-term protection only. For long-term protection on-site, the product should be stored indoors, or under cover and off the ground. U-Spec Pipe Section mat should not be left permanently exposed to the elements before installation.

ACOUSTIC PRODUCTS FOR HVAC AND INDUSTRY

U-Spec Acoustic Products for HVAC and Industry consist of **Acoustilag**, **U-Tube**, and **Acoustek Wrap** which are high performance acoustic insulation products incorporating a mass-barrier layer, and designed to provide noise control to circular and rectangular ductwork and service and process pipework. The mass barrier is available in 5kg/m² and 10kg/m² weights.

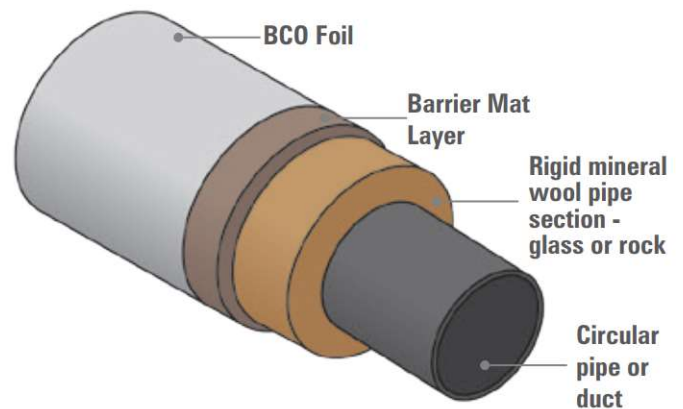
ACOUSTILAG is made from acoustic glass wool, which has been tissue-faced both sides and stitched to form a quilt, and laminated to a mass barrier membrane which has an outer facing finish of reinforced Bright Class O aluminium foil. The glass wool is available in 25mm and 50mm thicknesses (pre-quilted).

Quilt	25mm, 50mm
Dimensions	2m x 1.2m
Form	Flat sheet or roll
Mass barrier	5kg/m ² , 10kg/m ²



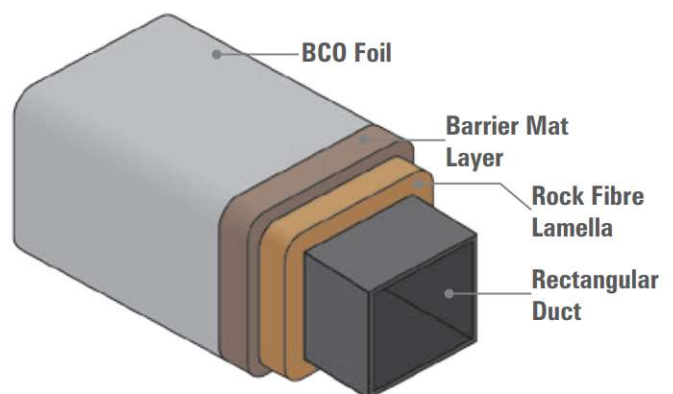
U-TUBE is manufactured from rock wool rigid pipe sections, and covered with a mass barrier membrane. The membrane has an outer facing finish of reinforced Bright Class O aluminium foil.

Length	1m, 1.2m
To suit pipe OD	17mm to 610mm
Wall thickness	20mm to 100mm
Mass barrier	5kg/m ² , 10kg/m ²



ACOUSTEK WRAP consists of 45kg/m³ stone wool lamella strips which are bonded to a mass barrier membrane. The mass barrier incorporates reinforced Bright Class O aluminium foil to the exposed side.

Mineral wool	25mm to 120mm
Dimensions	2m x 1.2m
Form	Flat sheet or roll
Mass barrier	5kg/m ² , 10kg/m ²



Fire Performance

Glass and rock mineral wool - Reaction to fire, Euroclass A1
Reinforced aluminium foil – Class O to Building Regulations
Mass barrier – Reaction to fire, Euroclass B – s2, d0.

Maximum Service Temperature

230°C, but to maintain the integrity of the factory-applied covering, the surface temperature of the products should not exceed 80°C.

Packaging

U-Spec Acoustic Products are supplied on pallets, and protected by polythene covering, which is designed for short-term protection only. For long-term protection on site, the product should be stored indoors, or under cover and off the ground and should not be left permanently exposed to the elements before installation.

SONIC DUCT LINER

A flexible internal acoustic lining for HVAC ducts

U-Spec Sonic Duct Liner consists of a glass wool blanket faced with an acoustically permeable, white, woven glass cloth. Installed internally within the duct, it offers exceptional acoustic properties, absorbing noise generated by air conditioning equipment, and reducing noise transmission along ducting.

Application – U-Spec Sonic Duct Liner is installed internally with the glass cloth on the airflow surface. When installed in accordance with M & E Designers detail and specification, and with sealed joints, the product will not erode or release fibres into the airstream under normal operating conditions, and offers minimal air friction.

Operating Conditions – HVAC systems operating up to 120°C, and with air velocities up to 20 m/s.

Dimensions

Thickness	Length	Width
25mm	1200mm	20m
50mm	1200mm	13m



Fire Performance – Glass Wool - Reaction to fire, Euroclass A1

Thermal Conductivity – 0.036 W/m.K.

Packaging - U-Spec Sonic Duct Liner is supplied in roll form in polythene packs, which are designed for short-term protection only. For long-term protection on site, the product should be stored indoors, or under cover and off the ground and should not be left permanently exposed to the elements before installation.

ACOUSTIC BARRIER

U-Spec Acoustic Barrier is a high-density but flexible bitumen-free EPDM-based acoustic membrane, faced on one side with a reinforced aluminium foil, and is used for noise damping in a variety of applications. The product is available in 5kg/m² and 10kg/m² weights, and is in 2m x 1.2m sheet format.

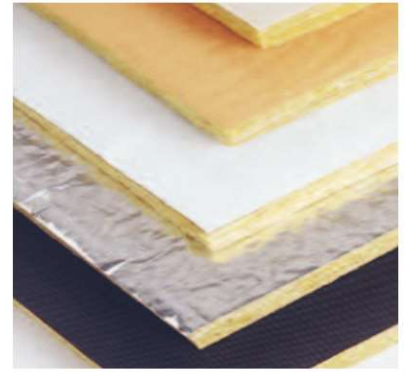
High density barrier membrane for noise damping

Property	5kg Barrier	10kg Barrier	Tolerance
Weight	5kg/m ²	10kg/m ²	+/- 5%
Thickness	2.5mm	5.0mm	+/- 0.5
Fire - Euroclassification	B – s2 d0	B – s2 d0	
Length x Width	2.0m x 1.2m	2.0m x 1.2m	



FACED PRODUCTS

U-Spec has the facility to apply a wide range of facings to a variety of insulation and building products. We specialise in applying a range of facings and linings that are not available on bulk-produced products from main manufacturers; or supplying small-quantities of products with standard facings which are available from main manufacturers but with volume or lead time restrictions.



Benefits of using U-Spec for your facing requirements

- No minimum order quantities
- Short lead time
- Wider range of facings and sizes

Factory-applied facings

The table gives an overview of the most common facings which we have readily available, and the typical insulation products to which the facings are generally applied. However, we should be able to apply any type of facing to any type of product to suit you or your customer's requirements.

Facing	Typical Use	INSULATION SLABS Glass wool Rock wool Phenolic/PIR/EPS/XPS	INSULATION ROLLS Glass wool Rock wool Lamella Mat Needle mat Ceramic Blankets	PIPE SECTIONS Glass wool Rock wool Phenolic	Other Products
Internal Grade Class O Aluminium Foil	HVAC	✓	✓	✓	-
Silver, black and white	HVAC and Industry	✓	✓	✓	-
External Grade Aluminium Foil	Acoustic Lining	✓	✓	✓	-
Silver, stucco, black, white	External pipework	✗	✗	✓	-
Glass Tissue	Pipe Insulation for painting	✗	✗	✓	-
Black and white	Internal Duct Lining	✓	✓	✓	-
PIB	Marine applications	✗	✗	✓	-
Canvas/calico	Noise control	✗	✗	✓	-
Glass Cloth	Acoustic wall lining	✓	✓	✗	-
Navy Board-Grade Glass Cloth	Cold store lining	✓	✓	✗	-
Polymeric Noise Barrier Membrane	Noise control	✓	✓	✓	-
Decorative fabric	Acoustic wall lining	✓	✓	✗	-
Self-adhesive backing	Cold store lining	✗	✗	✗	✓ Flexible foam and rubber sheets

ENCAPSULATED PRODUCTS

U-Spec Encapsulated Products are glass or rock mineral wool insulation fully enclosed in a suitable covering. The encapsulation material is typically polythene film, either standard grade or fire-retardant grade. Alternatively Bright Class O aluminium foil or non-woven polypropylene can be used as the enclosing medium.



Encapsulated Products are available either in square or rectangular pad-format, or full-length rolls.

Application

Ceiling Pads are typically used above suspended ceilings to enhance the acoustic performance of the ceiling. Generally used in clean-air environments or situations where loose fibres may cause problems. Encapsulated insulation is ideal for use where ceiling tiles and insulation are likely to be disturbed during the life of the installation to allow maintenance in the ceiling void.

Encapsulated Rolls are also used above suspended ceilings to enhance the acoustic performance of the ceiling, but are more commonly used as an itch-free thermal insulation product in lofts and roofs.



Dimensions

Ceiling Pads can be supplied in any dimension, but are typically 600mm x 600mm and 1200mm x 600mm, and in thicknesses ranging from 25mm up to 300mm

Encapsulated Rolls are available in widths of 386mm, 580mm and 1,160mm, and in lengths of 9.17m (at 100mm thickness), 6.03m (at 150mm thickness) and 3.88m (at 200mm thickness)

Insulation Infill

Glass wool, typically 10 kg/m³ density. rock wool, typically 45 kg/m³ density

Encapsulating medium: Polythene film – standard grade or FR grade; or Bright Class O aluminium foil; non-woven polypropylene.

Fire Rating of Mineral Wool Infil – Euroclass A1

Packaging – Encapsulated Products are packed in clear polythene bags which are designed for short-term protection only. For long-term protection on site, the product should be stored indoors, or under cover and off the ground, and should not be left permanently exposed to the elements before installation.

SOFFIT LINER

U-Spec Soffit Liner is a laminate of two components – a mineral wool or foam plastic insulation board bonded to a choice of rigid building boards

Application

U-Spec Soffit Liner is typically used in semi-exposed applications, such as open-sided car parks, where it is used for the underlining of ceilings and soffits. It is primarily used to provide thermal insulation, but depending upon the choice of components, can also provide fire protection, acoustic insulation, high impact resistance, and an aesthetic finish. It is suitable for use in both residential and non-residential applications, in new-build and refurbishment projects.

Typical Soffit Liner Components

Mineral wool – stone wool slab

- Thermal conductivity 0.035 W/m.K (typical value)
- Reaction to fire classification of A1 as defined in BS EN 13501 – 1 (totally non-combustible, and Class O to the Building Regulations)

PIR

- Thermal conductivity 0.021 – 0.022 W/m.K
- Euroclass F (Typical Reaction to Fire classification) and Class 1 or Class O fire classification to the Building Regulations
- Compressive strength of 120 kPa at 10% compression

Phenolic

- Thermal conductivity, typically 0.020 – 0.023 W/m.K
- Euroclass B (typical Reaction to Fire classification) and Class O to the Building Regulations
- Compressive strength 100 kPa at 10% compression

Liner board options

Calcium Silicate – A building board that can be cut, drilled, sanded and worked in a similar fashion to that of timber, with equivalent tools and machinery. Building Regulations fire classification is Euroclass A1 and with a Class O designation. Typical thermal conductivity is 0.14 W/m.K. and with a typical density of 1150 kg/m³.

Magnesium Silicate – a building board manufactured using inorganic substances and incorporating alkaline resistant glass fibre mesh. Building Regulations fire classification is Euroclass A1. Typical thermal conductivity is 0.26 W/m.K. and with a typical density of 1050 kg/m³.



Other boards can be used, such as cement particle boards or magnesium oxide/magnesium chloride boards.

Dimensions

Thickness

Building board liner is typically 6mm, but other thicknesses can be used.

Insulation thickness is typically a minimum of 25mm and maximum thickness can be 165mm or above, depending upon the type of insulant and desired U value of the application.

Length and width

Soffit Liner laminate made with mineral wool is typically available in 1200mm x 600mm nominal dimensions. Soffit Liner laminate made with foam plastic insulants can be supplied in 2400mm x 1200mm nominal dimensions. However, the laminate can be manufactured in a range of dimensions, upon request.

Fixing Recommendations

For horizontal applications, such as car park soffits, U-Spec Soffit Liner can be mechanically fixed direct to the masonry substrate using suitable fixings, and the fixing supplier should be contacted for advice prior to fixing. Alternatively, U-Spec Soffit Liner can be attached to treated timber battens which have previously been secured to the ceiling.

Packaging

U-Spec Soffit Liner is supplied on pallets, complete with edge protection, polythene wrapping, and a weather-proof pallet hood. This packaging is designed for short-term protection only. For long-term protection on site, the product should be stored indoors, or under cover and off the ground. U-Spec Soffit Liner should not be left permanently exposed to the elements before installation.

ACOUSTIC PANELS

U-Spec Acoustic Panels are manufactured from rigid mineral wool with high acoustic absorbency, which is wrapped in decorative fabric on the exposed face and edges.

The panels are typically rectangular in shape but other linear-sided shapes, such as triangles, can be manufactured, as well as curved shapes, such as semi and full circles.



Application

U-Spec Acoustic Wall Panels are used to provide soundproofing and to reduce sound reverberation in educational establishments and commercial environments, such as schools, studios, auditoria, multiplex and home cinemas and offices. The panels are typically wall hung, but are also suitable for suspension from ceilings and soffits. The panels provide a decorative and aesthetic feature, in addition to being highly efficient noise absorbers.

The panels are available in a range of standard sizes and thicknesses, but bespoke panels and absorbers can be manufactured to your specific shapes and dimensions or choice of fabric facing.

Panel Thickness	Mounting Method*	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	NRC	Absorber Class
25mm	Flush mounted	0.07	0.31	0.76	1.02	1.09	1.10	0.80	C
25mm	25mm air gap	0.11	0.42	1.01	1.12	1.09	1.08	0.90	C
25mm	50mm air gap	0.18	0.55	1.13	1.10	1.05	1.02	0.95	B
50mm	Flush mounted	0.32	0.90	1.15	1.10	1.09	1.10	1.05	A
50mm	25mm air gap	0.35	1.04	1.21	1.15	1.10	0.98	1.15	A
50mm	50mm air gap	0.41	1.02	1.15	1.10	1.03	1.00	1.11	A
100mm	Flush Mounted	0.89	1.11	1.20	1.27	1.27	1.25	1.17	A

*Mounting method describes whether the panel was tested flush against the wall or with an air gap behind it.

ACOUSTIC INFILLS FOR ROOF PROFILES (TRAPEZOIDAL WEDGES)

U-Spec Acoustic Infills are supplied to fit within the trapezoidal profile of metal roof lining panels, in particular, where the lining panel is perforated for acoustic purposes.

Made from non-combustible rock wool, the infills can be supplied plain, or where they are used in conjunction with perforated metal decks, can be supplied with a black or white tissue facing to three or four sides.

U-Spec Acoustic Infills can be manufactured to suit any commercially available or non-standard roofing deck profile.

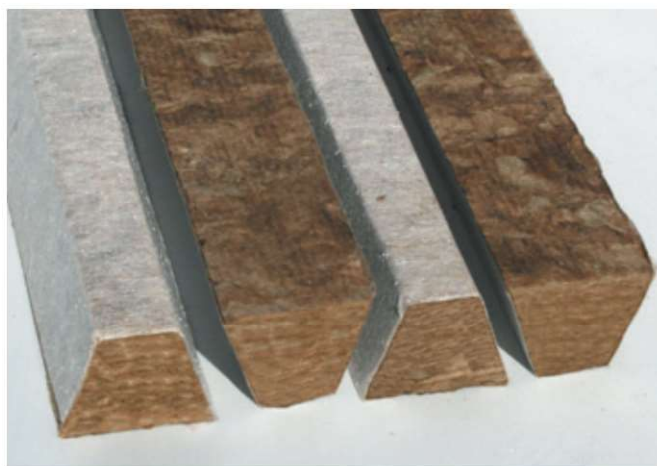
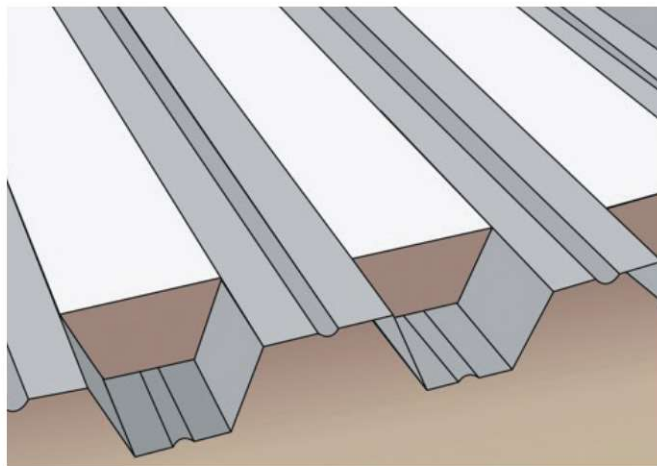
Properties	Details
Length	1200mm
Thickness	To suit all metal deck profiles
Fire Properties	Made from non-combustible rock wool insulation with Euroclass A1 fire rating

Application

U-Spec Acoustic Infills are engineered to suit all types of perforated metal roof deck profiles, and are used to meet acoustic specifications preventing reverberation and to improve the acoustic environment of the building. The infills are pre-cut to match the specific roof profile, and can be laid directly into the troughs of the metal deck on site.

Packaging

U-Spec Acoustic Infills are supplied flat-packed in polythene packs, which are designed for short-term protection only. Where appropriate, the panels are delivered to site on pallets, complete with edge protectors and shrink wrapping. For longer-term protection on site, the product should be stored indoors, or under cover and off the ground. U-Spec Acoustic Infills should not be left permanently exposed to the elements before installation.



THERMAL AND ACOUSTIC LAMINATES

U-Spec Thermal and Acoustic Laminates

Consists of a rigid insulant bonded to a building board liner. The laminating process allows a variety of component options for both the liner board and the insulation backing material, and U-Spec can produce thermal and acoustic laminates with insulation and lining board components not available from mainstream bulk manufacturers. Laminates can be supplied in a variety of dimensions and thicknesses, and can have square, bevelled, or interlocking edges.

Typical Applications

Internal lining of walls, ceilings and roofs in both residential and non-residential applications in new-build and refurbishment projects.

Specialist Applications

Lead Lined Plasterboard - for use as a barrier against radiation, such as X-Rays, U-Spec manufacture lead-lined plasterboard using lead that is CE-marked for internal lining purposes. Typical applications are medical environments such as hospital radiology units, clinics and dental surgeries.

Insulated Loft Decking - to provide storage in loft spaces without compromising the thermal insulation of the roof.

Typical Components of U-Spec Thermal and Acoustic Laminates

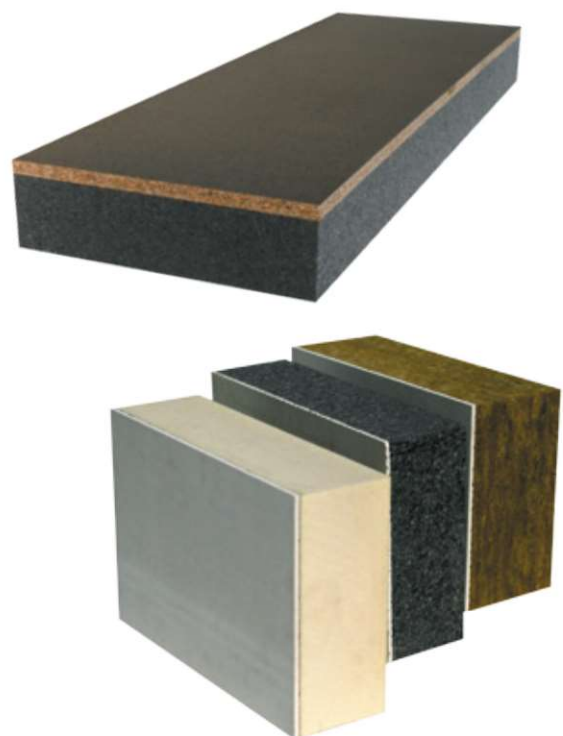
Most commonly taper-edge plasterboard in combination with foam plastic insulants such as PIR, EPS, XPS and phenolic foam. However, specialist building boards such as cellulose reinforced plasterboard, calcium or magnesium silicate boards can be used. Acoustic laminates typically comprise mineral wool bonded to plasterboard.

Dimensions

Insulation thickness - typically a minimum of 25mm and a maximum of 150mm, but can be greater than this depending upon the type of insulant. Liner board thickness usually from 3mm for building boards up to 12.5mm for plasterboard. Dimensions of finished laminate is typically 2.4m x 1.2m but other sizes can be manufactured on request.

Packaging

Thermal and Acoustic laminates are supplied on pallets, complete with edge protection, polythene wrapping, and a weatherproof pallet hood. This packaging is designed for short-term protection only. For long term protection on site the laminates should be stored indoors or under cover and off the ground, and should not be left permanently exposed to the elements before installation.



LAMELLA FIRE BREAKS

U-Spec Lamella Fire Breaks are manufactured from non-combustible mineral wool, and typically supplied in strip form in 200mm widths and 1200mm lengths, in a variety of thicknesses.

Application

U-Spec Lamella Fire Breaks are intended for use in External Wall Insulation (EWI) applications, where the main fabric insulation is a foam plastic insulant, such as XPS. They are typically used horizontally at each floor level where Building Regulations demand a fire break, and installed with the plane of the fibres at right angles to the plane of the wall. This provides improved compression resistance as an aid to subsequent over-rendering.



UPSTAND BOARD FOR PARAPET WALLS

U-Spec Upstand Board

U-Spec Upstand Board is a laminate of rigid, high performance extruded polystyrene (XPS) laminated to a weather resistant facing board.

Application

U-Spec Upstand Board is designed for the insulation of parapet walls and other vertical upstands in flat roof construction. It is intended to reduce heat loss from within the building through "cold bridging" via vertical elements such as parapet walls which, because of their integral connection with the general building envelope, would otherwise provide a route for heat loss conduction and condensation at "cold spots" within the building.

Dimensions

Typically 1200mm x 600mm, and with a laminate thickness of 56mm (50mm XPS and 6mm facing board. Other dimensions available on request.

Thermal Conductivity

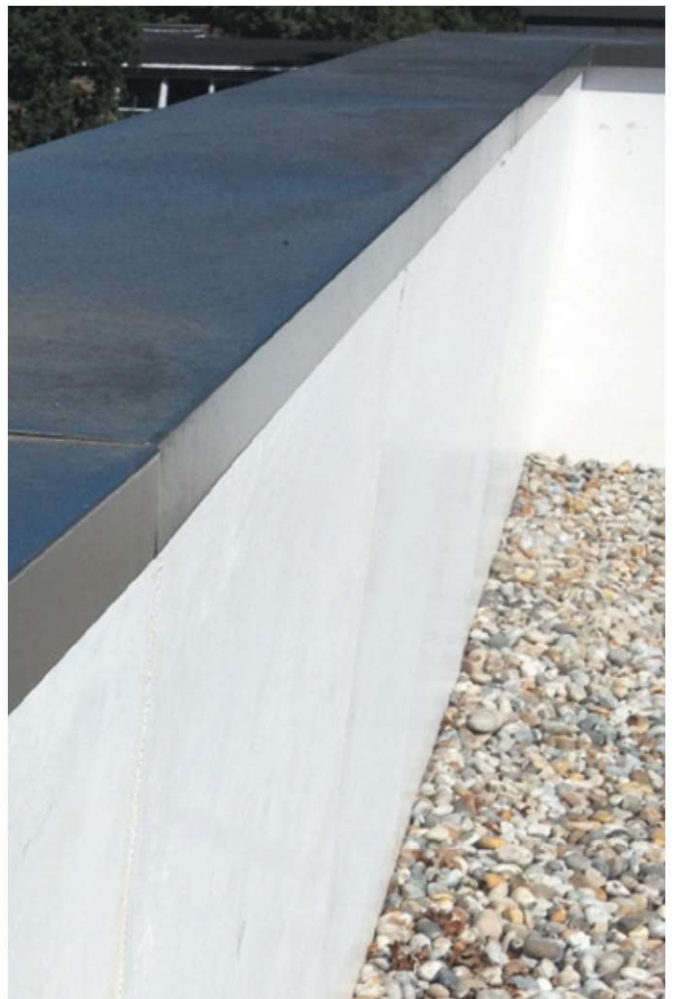
XPS 0.033 W/mK; Facing board 0.300 W/mK

Fire Rating of the Facing Board

A1 Euroclass, non-combustible

Life Expectancy of the Facing Board

30 years minimum



CAVITY BARRIERS

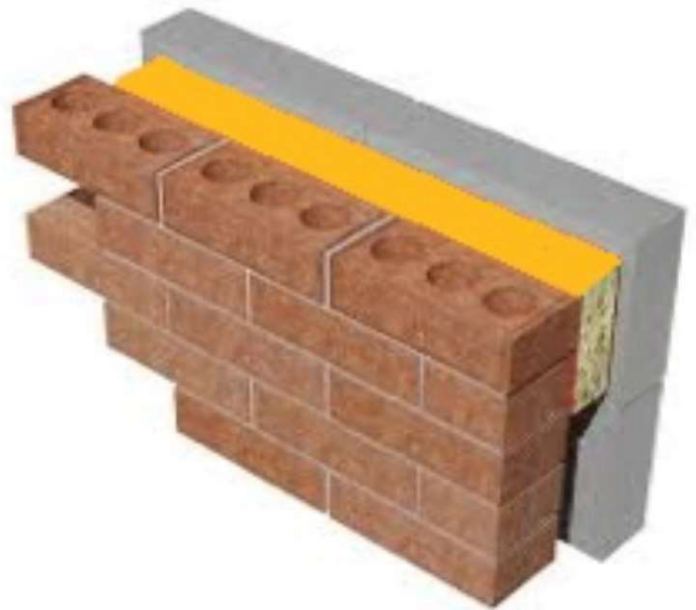
U-Spec Cavity Barriers are manufactured from rock mineral wool which has a Euroclass A1 fire rating.

The mineral wool is enclosed in a sleeve of polythene, and the barriers incorporate a self-adhesive strip to facilitate fixing to appropriate substrates. They are installed in the cavities of external walls, both timber frame walls and other types of construction, to help meet fire, thermal and acoustic regulations.

Application

Fire - U-Spec Cavity Barriers are installed in concealed cavities of external walls of buildings to inhibit the spread of fire.

Thermal - They also help in compliance with the thermal requirements of Approved Document L (England & Wales) and Section 6 (Scotland) by reducing the thermal bypass effect in party walls. By providing edge-sealing to separating cavity party walls at their junction with the cavities of external walls, U-Spec Cavity Barriers help to achieve a zero U-value, as defined in the Building Regulations.



Acoustic –U-Spec Cavity Barriers also help to meet the acoustic requirements of Approved Document E (England & Wales) and Section 5 (Scotland) by minimising flanking sound transmission along cavity walls.

Range of Sizes

Two versions are available:

Standard Cavity Barriers – for use in normal external wall cavities.

Wide Cavity Barriers – for Perimeter Edge Seal at the junction of a party wall cavity with the external wall cavity, helping to minimise air leakage and heat loss via the party wall cavity.

For cavity width (mm)	50 - 55	56 - 65	66 - 75	76 - 80	81 - 90	91 - 100	101 - 110	111 - 120	121 - 130	131 - 140	141 - 150
Standard Cavity Barrier (mm):	65 x 65	75 x 75	85 x 85	90 x 90	100 x 100	110 x 110	120 x 120	130 x 130	140 x 140	150 x 150	160 x 160
Pack Specification Barriers per pack	36	32	21	18	18	10	10	8	8	8	6
Wide Cavity Barrier (mm):	200 x 65	200 x 75	200 x 85	200 x 90	200 x 100	200 x 110	200 x 120	200 x 130	200 x 140	200 x 150	200 x 160
Pack Specification Barriers per pack	15	12	12	9	9	9	6	6	6	6	6

Other sizes available on request

SERVICES

U-Spec Fabrication and Conversion Services

U-Spec provides a fabrication and converting service in the insulation industry - converting or altering standard-spec production-line insulation products to a format in tune with specific end user requirements. We work with all types of products, glass and rock insulation, foam plastics & polyethylene foam, ceramic fibres & many other insulation types. In addition, we have experience working with a range of building boards, such as cement particle and similar boards.



Our capabilities include:

LAMINATION

Any insulant to any rigid board, for example thermal laminates, soffit liners, cold store panels etc

ENCAPSULATION

Ceiling pads and loft insulation totally enclosed in polythene or other covering, such as tissue or aluminium foil

FACING AND COVERING

Insulation slabs or rolls, pipe sections, decorative acoustic wall panels – all with any covering – normally tissue, aluminium foil, or glass fabric

CUTTING AND SHAPING

Anything cut to size & shape (vertical, horizontal, angular) - trapezoidal wedges, bevelled lags, lamella fire breaks (for EWI applications)

CUTTING AND SLOTTING

For example, slotted phenolic boards to bend round curved surfaces

ROUTING AND TONGUE-AND-GROOVING

Also routing, tongue-and-grooving etc

SANDING

Typically mineral wool slabs to provide a smooth surface, or tight-tolerance thicknesses

insulation made to your specification



U-Spec reserves the right to revise product specifications without notice. The information in this document was correct to the best of our knowledge at the time of publication. It is the user's responsibility to ensure that it remains current prior to use. The information in this document is for guidance only and should not be read in isolation. Please contact U-Spec before order placement to confirm product and packaging details and performance.