Est. 1951

SWARTLAND

EXPERIENCE QUALITY

SUMMIT

ABOVE EXPECTATIONS

XPS INSULATION BOARD, CORNICES AND ACCESS CONTROL PANELS

ABOUT SUMMIT

Summit offers insulation and decorative ceiling products of the highest quality. We're excited to introduce a new XPS Insulation Board to the market. Summit XPS board is manufactured in our factory with zero ozone depletion potential (ODP).

We follow strict global warming potential protocol.

WHAT IS SUMMIT XPS?

XPS, or extruded polystyrene foam board, is a rigid polystyrene with high compressive strength. Its closed-cell structure provides excellent long-term thermal insulation performance because of its inherent resistance to moisture transfer.

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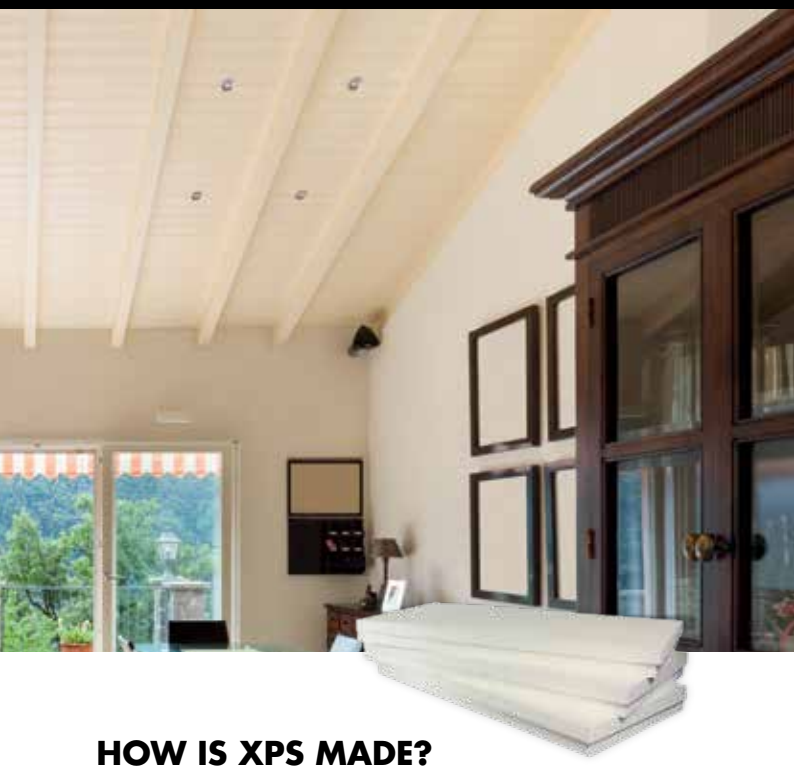


HOW IS XPS MADE?

XPS board is produced during a continuous, fully-automated extrusion process to create a fixed cross-sectional profile. Solid granules of polystyrene resin are fed into an extruder, where they are melted and mixed with various additives (including fire retardant) to form a thick, viscous fluid.

A blowing agent, capable of producing a cellular structure via a foaming process, is injected into the liquid to enable its expansion. Under carefully controlled heat and pressure conditions, the plastic mixture is forced through a die into the desired shape, usually boards.

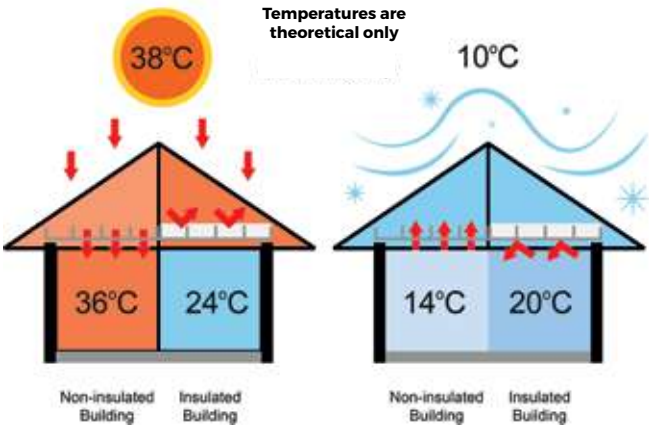
Once rigid, the foam plastic is trimmed to various lengths and thicknesses to suit most residential, commercial, agricultural and industrial thermal insulation requirements.

SUMMIT XPS BOARD APPLICATIONS

1. Nail-up ceiling and between trusses insulation
2. Over-truss/over-rafter insulation
3. Over-purlin insulation
4. Cavity/perimeter wall insulation
5. Under-floor (surface bed) insulation

WHAT IS THERMAL INSULATION?

Thermal insulation is the process of reducing the transfer of heat between objects that are in thermal contact. The insulating capability of a material is measured as the inverse of thermal conductivity (k) – so low thermal conductivity is equivalent to high insulating capability.



WHY IS INSULATION IMPORTANT?

Maintaining a comfortable interior temperature by heating and cooling them constantly, makes up a huge portion of the world's energy consumption.

Well-insulated buildings will:

A) Be more energy-efficient

Summit XPS insulation board will reduce the amount of energy used for heating and cooling the home or working environment, and will help to maintain the

specific temperature required in commercial and agricultural buildings.

B) Increase comfort levels

Insulation helps to maintain a uniform temperature (typically between 21˚C and 28˚C) in a home or office, producing a more comfortable environment for the occupants.

C) Be more eco-friendly

In this way, Summit XPS insulation board helps to reduce greenhouse-gas emissions, lowers the carbon footprint of a building and helps to achieve compliance with National Building Regulations SANS 10400-XA.

The gasses used in the manufacturing have zero ozone depletion potential, with no significant contribution to increasing the greenhouse effect. The product has an almost indefinite lifespan if installed correctly and will contribute to significant energy savings.

D) Save money

In addition to reducing the cost of maintaining a comfortable temperature, Summit XPS insulation board has minimal recurring expenses. Unlike heating and cooling equipment, insulation is permanent and does not require maintenance, upkeep or adjustment.

E) Improve health and productivity of workers

Better thermal insulation reduces the build up of condensation, resulting in a healthier environment. In most commercial and agricultural applications, effective temperature control has an impact on production outputs and input costs.

WHAT IS THE R-VALUE?

The R-value is a measure of how well a two-dimensional barrier, such as a layer of insulation, a window or a complete wall or ceiling, resists the conductive flow of heat.

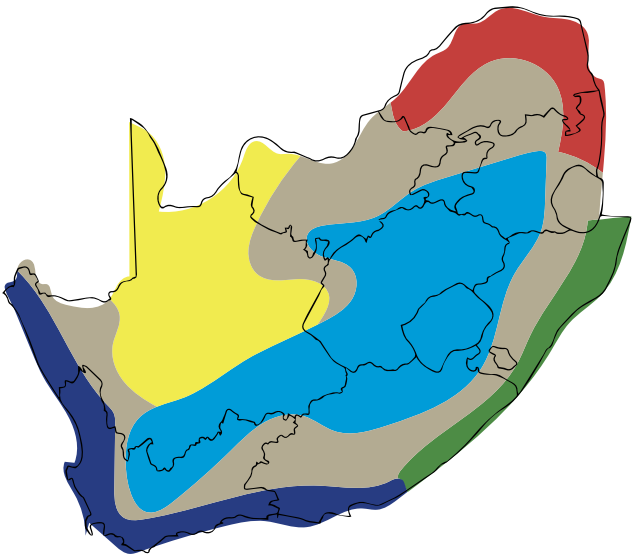
The higher the R-value, the more resistant a product is to heat flow. The R-value applies only to specific materials – so to calculate the overall R-value of an entire system (such as a wall system), the R-values of all components must be added together.

WHAT ARE 'UP' ↑ AND 'DOWN' ↓ R-VALUES?

'Up' values measure the flow of heat rising up through the insulation – while 'down' values measure the amount of heat passing down through the insulation.

These are also sometimes known as winter and summer values, respectively. These measurements are especially important when dealing with reflective insulation.

CLIMATIC ZONES OF SOUTH AFRICA



- Cold Interior
- Hot Interior
- Temperate Interior
- Temparate Coastal
- Sub-tropical Coastal
- Arid Interior

R-VALUES

MINIMUM TOTAL R-VALUES OF ROOF ASSEMBLIES

Description	Climate zones					
	1	2	3	4	5	6
Minimum required total R-value (m2 K/W)	3.7	3.2	2.7	3.7	2.7	3.5
Direction of heat flow	Up	Up	Down and Up	Up	Down	Up

METAL SHEETING ROOF ASSEMBLIES

Description	Climate zones					
	1	2	3	4	5	6
Direction of heat flow	Up	Up	Down and Up	Up	Down	Up
R-value (m2 K/W) of roof covering material	0.30				0.36	0.30
Added R-value of insulation	3.35	2.85	2.35	3.35	2.29	3.15

CLAY TILE ROOF ASSEMBLIES

Description	Climate zones					
	1	2	3	4	5	6
Direction of heat flow	Up	Up	Down and Up	Up	Down	Up
R-value (m2 K/W) of roof covering material	0.35				0.48	0.35
Added R-value of insulation	3.30	2.80	2.30	3.30	2.24	3.1

GUIDELINES FOR SUMMIT XPS INSULATION BOARD USAGE

- Summit XPS insulation board is a bulk insulator, used to prevent the transfer of heat through conduction and convection
- The greater the thickness the more insulation Summit XPS board will provide
- All other factors being equal, temperatures will be more stable in better-insulated buildings
- Different climatic regions require different insulation interventions to achieve similar levels of comfort (as well as legal compliance)
- Summit XPS board is a thermal insulation solution. It should not be used in isolation as a sound barrier. Consult a noise reduction system specialist

Contact us to determine the appropriate Summit XPS insulation board thickness for your application

FIRE TEST

Summit XPS insulation board will be classified as B/B1/2/H&V in terms of SANS 428, which means that although it is combustible, it poses no flame-spread hazard

Summit XPS can be installed horizontally or vertically in any building type – even those without a sprinkler system – with the exception of regulated buildings that require non-combustible materials. Exposed to fire, Summit XPS insulation board shrinks away from the heat source, with no flaming droplets or flame spread

NAIL-UP

Summit XPS insulation board made of high-density (32-36kg/m3), rigid extruded polystyrene, 600mm wide and XXXmm thick.

- Boards are fixed to brandering with Summit XPS Adhesive applied at 300mm intervals, transverse to the trusses, at a maximum of 700mm apart.
- Boards are fastened along the edges with concealed clips, and secured to the brandering with screws or pop rivets. Boards are secured to perimeter brandering with drywall screws and washers at 300mm intervals.

OVER-PURLIN

Summit XPS insulation board made of high-density (32-36kg/m3), rigid extruded polystyrene, 600mm wide and 300mm thick.

- Boards are fitted above the purlins using tongue-and-groove profiles, and concurrent with the roof covering, at approximately XXXmm centres.
- Butt joints require a 5mm gap between boards.

UNDERFLOOR AND SURFACE BED

Summit XPS insulation board made of high-density (32-36kg/m3), rigid extruded polystyrene, 600mm wide and 30mm thick.

- Boards are fitted using tongue-and-groove profiles, and laid on plastic sheeting under reinforced concrete floors.

PROPERTIES:

- Thermal conductivity = 0.03 W/m.K
- Density = 32kg/m^3 - 38kg/m^3

R-VALUE (Km^2/W)

Standard Thickness	R-Value
30mm	1.00 m^2.K/W
40mm	1.33 m^2.K/W
50mm	1.67 m^2.K/W
60mm*	2.00 m^2.K/W
70mm*	2.33 m^2.K/W
80mm*	2.67 m^2.K/W
100mm*	3.34 m^2.K/W

*Special Order Thickness

CEILING ACCESS PANELS

FINISHED ACCESS PANELS

Available in: 400 x 400mm and 600 x 600mm

- Concealed snap lock: push to open/close
- Powder coated galvanized steel frame and door
- Easy to install
- Steel bar hinge

UNFINISHED ACCESS PANELS

Available in: 400 x 400mm and 600 x 600mm

- Concealed snap lock: push to open/close
- Powder coated aluminum frame with 12.5mm gypsum moisture resistant board
- Door to be skimmed & painted
- Easy to install

INSTALLATION GUIDELINES

- Remove the door from the frame
- Create an opening within the plasterboard wall or ceiling by drawing around the inner rim of the Summit Trap Door – allow for an extra 5mm
- Cut opening using a saw, and install the frame in the ceiling or wall
- Ensure the frame is set square into the opening. Fix frame through the face of the plasterboard using approved screws (minimum two fixings per side, and maximum 300mm centres)
- For a secure fix, provide additional structural framing that is fixed to the ceiling framework around the opening. Re-fit door into frame and check operation prior to finishing
- Remove the door
- Skim & paint around the fitted frame
- Ensure all jointing material has been removed from the frame and door edge, as this will affect the door's operation

Available from leading hardware retailers and SBS stores nationwide.

SUMMIT XPS CORNICE RANGE

Summit XPS cornices will add a designer touch to any home. Traditionally made from wood or gypsum, our cornices are made from our own locally manufactured extruded polystyrene (XPS), which offers many benefits.

A) Easy, quick installation
Polystyrene is lightweight, easy to cut and glue into place with Summit XPS adhesive, and flexible enough to "forgive" uneven surfaces.

B) Versatile mounting surfaces
Polystyrene cornices can be mounted onto concrete, wood, face brick, marble, tile, vinyl, steel, granite and plastic.

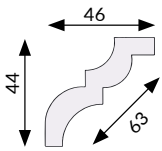
C) Easy painting
The smooth surface of Summit XPS cornices merges well with white ceilings, and needs only one coat of white, water-based paint.

D) Durability
Providing excellent thermal insulation, polystyrene is water-resistant, flexible, durable and resistant to damage caused by household pests.

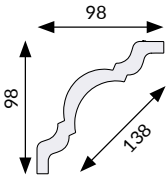
E) Design variety
Polystyrene cornices come in various styles to suit any interior aesthetic, and (unlike timber cornices) are available in a single piece of intricate design.

F) Suitability for wet areas
Polystyrene is resistant to moisture damage, which makes our cornices ideal for kitchens, bathrooms and outside patios.

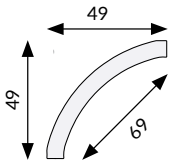
SUMMIT XPS CORNICES



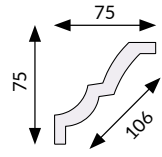
XPSO1



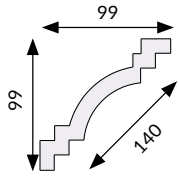
XPSO2



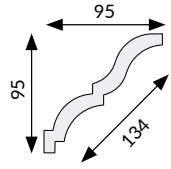
XPSO3



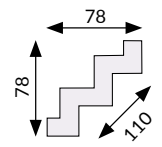
XPSO4



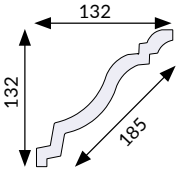
XPSO5



XPSO6



XPSO7



XPSO8

KNAUF CEILING INSULATION

Knauf ceiling insulation is made from high-performance glass mineral wool. Glass mineral wool consists of 80% high-quality recycled materials – sand or recycled glass, with limestone and soda ash added before the mixture is melted in a furnace. The molten glass is spun into millions of fine "wool" strands, and bound into mats with the revolutionary bio-based ECOSE® Technology. The density of the product determines its thermal insulation value.

ECOSE® Technology offers the following benefits:

- No added formaldehyde (a common ingredient in other glass-wool products that can cause irritation and allergic reactions)
- No added artificial colours or bleaches
- Energy savings – ECOSE® Technology binding consumes 70% less energy compared to traditional formaldehyde-based binders, and reduces CO2 emissions by up to 25%
- Durability – the insulation is rot-proof, does not sustain vermin and will not encourage the growth of fungi, mould or bacteria

WHY KNUAF?

- Pleasant to handle and install
- No itch, no smell
- Virtually no dust
- Rolls perforated for easy and faster installation

INSTALLATION BENEFITS

- 2 - 3 times less trips up the roof for the installer
- Saves time, less cost, more profit
- Less space taken up on vehicle per m^2/job
- Faster installation

FIRE CLASSIFICATION

Knauf ceiling insulation is rated EUROCLASS A1 under BS EN 13501-1, as well as A/A1/1** in accordance with SANS 428:2012, SANS 10177-5 A (non-combustible) and SANS 10177-10 A1 (no flame spread). A fire test report is available on request.

PRODUCT SPECIFICATION

Knauf ceiling insulation is available in perforated rolls, in multipacks of 2 x 50mm thick rolls, or as 1 x 100mm thick rolls. Factory-applied perforation cuts make it easy to create two precise, equally sized, 600mm-wide rolls, or 800mm + 400mm-wide rolls, depending on the spacing of your rafters. This results in easy, dust-free installation.

Product Description	R-value (m2k/w)
50mm Knauf Multi-pack (un-cut) ceiling roll	1.05
50mm Knauf Combi-cut ceiling roll	1.25
100mm Knauf Multi-pack (un-cut) ceiling roll	2.1
100mm Knauf Combi-cut ceiling roll	2.5
135mm Knauf Combi-cut ceiling roll	3.38

SUMMIT

ABOVE EXPECTATIONS

SWARTLAND

The Swartland story began back in 1951 with Oupa Hanekom in the small town of Moorreesburg – a few wheat fields north of Cape Town.

When his son, Oom Jurgens, took over the reins, he introduced his personal philosophy of "continuous improvement" to the business.

Today under the leadership of Jurie, James and Hans Hanekom, this desire to improve constantly is an integral part of the Swartland culture. It's a place where traditional values such as hard work and pride live in harmony with new technology and inspired ideas.

The results speak for themselves: our products are crafted to perfection, manufactured to last and backed by knowledgeable national sales and service teams.

National Call Centre: 0861 10 24 25

SUMMIT XPS INSULATION BOARD | SUMMIT XPS CORNICES | SUMMIT TRAP DOORS | SUMMIT INSULATION

www.swartland.co.za

HEAD OFFICE: 0861 10 24 25
Cape Town: 0861 10 24 25 **Johannesburg:** 0861 10 24 25
Durban: 0861 10 24 25 **Port Elizabeth:** 041 487 1342
East London: 043 745 0410 **George:** 044 874 5642
Namibia: 00 264 612 49558

THE SWARTLAND FAMILY OF BRANDS

CAPE CULTURE | WINSTERS | KAYO | COL | KENZO | SUMMIT | HYDRO | DIGI

March 2020