

Get energy-efficient
Get comfortable
Get green
Get ISOTHERM



ISOTHERM
Thermal Insulation



Recycled



Ceilings



Geysers



Safe to touch



COOL
in summer



WARM
in winter

Get energy-efficient

Challenge:

- South Africa is in the midst of an energy crisis.
- Buildings consume 40% of South Africa's energy.
- An un-insulated building loses as much as 35% of its energy via its ceiling.

Solution:

ISOTHERM Thermal insulation in ceilings and on geysers and water pipes can greatly reduce energy consumption and cost, while regulating indoor temperatures for ultimate comfort.

What is an R-value?

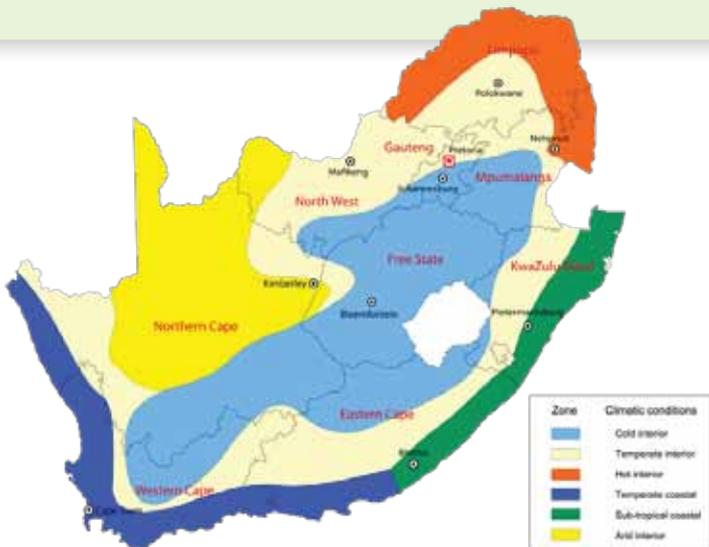
The R-value is the measure of an insulation product's ability to restrict heat transfer. It is thus indicative of an insulation product's thermal insulation performance.

The higher the R-value the better the performance and effectiveness of the insulation product.

The R-value of ISOTHERM Thermal Insulation and the R-value of the roof and ceiling assembly are added together to give the Total R-value. The new SANS 10400 requirements specify Total R-value.

In accordance with the global trend to regulate the design and construction of buildings for maximum energy efficiency, South Africa has recently updated **The National Building Regulation** (most specifically SANS 10400).

The new regulation stipulates that all new buildings or additions and alterations to existing buildings must comply with energy-efficient standards; including the **insulation of floors, walls, windows, ceilings and roofs**. Insulation specifications vary according to the climatic zone and its required Total R-value.



| Climatic zone | 1 | 2 | 3 | 4 | 5 | 6 |
|--|------|------|------|------|------|------|
| Minimum required Total R-value (SANS 10400 XA) | 3,7 | 3,7 | 2,7 | 3,7 | 27 | 3,5 |
| ISOTHERM R-value | 3,48 | 2,83 | 2,39 | 3,48 | 2,39 | 3,48 |
| ISOTHERM thickness (in mm) | 160 | 130 | 110 | 160 | 110 | 160 |
| Total R-value (incl. ceiling and roof materials) | 3,88 | 3,23 | 2,79 | 3,88 | 2,79 | 3,88 |

Get comfortable

Insulate roofs, geysers and water pipes with ISOTHERM Thermal Insulation to keep your home warm in winter and cool in summer.



Manufactured by Brits Nonwoven, ISOTHERM is:

Cost effective

ISOTHERM pays for itself by reducing the electricity costs of energy-consuming heating and cooling systems.

Safe and easy to install

The soft texture of ISOTHERM makes it is easy to roll out and cut to size. Pleasant to touch, ISOTHERM is simple and safe to install. It is non-allergenic, non-irritant and resilient and does not support the spread of flame.

Maintenance-free

ISOTHERM is resistant to condensation and associated fungi and bacteria. It retains loft and will not collapse over time.



Accredited

ISOTHERM has recognised standards of quality such as the South African Bureau of Standards (SABS) and proof of qualitative associations with associations such as TIASA.

ISOTHERM is also Agrément certified, an international standard of the highest quality and has earned ISO 9001 accreditation.



SABS Tested.



Get green

Humankind's imagination has created great innovation and, in turn, great waste. The challenge is, through the reuse of imagination, to recycle this waste into products that enhance lives and preserve our environment. ISOTHERM Thermal Insulation is one such product.

Millions of plastic PET bottles are thrown away into rubbish dumps and landfill sites every year. Instead of polluting our environment, these plastic bottles are collected, recycled and converted into ISOTHERM Thermal Insulation to be used to insulate buildings throughout Africa.

ISOTHERM complements 'Green building' the practice of increasing the efficiency with which buildings use energy, water and materials; and of reducing the impacts buildings have on human health and the environment. Not only is ISOTHERM made from recycled PET, it is itself 100% recyclable.

By its very definition ISOTHERM is an energy efficient product; reducing the warming and cooling needs of interiors and it also using less energy in the manufacturing process than fiberglass alternatives.





Get it installed

Basic installation guidelines:

- Measure accurately. Measure the distance between the roof beams or roof trusses and then select the correct roll of ISOTHERM.
- Trim ISOTHERM to specific sizes before entering the roof space. This is easily done - tear or cut it with a pair of industrial scissors or shears.
- Do not walk on the ceiling boards. Take care to only walk on crossbeams, truss ties or balancing boards.
- Position ISOTHERM correctly. Place ISOTHERM above and in close contact with the ceiling; fit snugly between the roof beams and trusses.
- Ensure continuous insulation. Carefully butt the ends of the rolls or lap to ensure maximum effectiveness.
- Allow a 150mm gap around flue pipes, ceiling fans and recessed lights.
- Wrap ISOTHERM around geysers and water pipes for further energy saving. Continue this installation process until the ceilings are completely insulated.
- Do not block ventilation points with insulation. This includes eaves gaps and air bricks at gable ends. Keep clear to ensure that the airflow is maintained.
- Do not waste off-cuts. Use them wisely - fill in gaps, crevices and corners.
- Do not put ISOTHERM in direct contact with metal chimney fabrications or flues passing through the loft space.
- Do not forget to insulate under the geyser and above the trap door.

Frequently Asked Questions

Does the R-value of ISOTHERM Thermal Insulation meet the stipulated requirements of the new SANS 10400 XA regulations?

Yes, installing the correct thickness of ISOTHERM for the climatic zone exceeds the required R-values as specified by SANS 10400 XA.

Does ISOTHERM Thermal Insulation have acoustic insulation qualities?

Yes, ISOTHERM has acoustic properties that will naturally dampen noises such as wind noise.

Is ISOTHERM Thermal Insulation flammable?

No, ISOTHERM has been fire tested to classification B/B1/2 and is safe for use in both residential and commercial applications. It will not contribute to the spread of flame and the product will self-extinguish when the heat source is removed.

What happens if ISOTHERM Thermal Insulation gets wet?

Because ISOTHERM is made from polyester it will not absorb water or other moisture. The product will dry naturally should it be exposed to small amounts of water.

Is ISOTHERM Thermal Insulation safe for people with allergies?

Yes, ISOTHERM is non-allergenic, non-irritant and non-toxic.

Is ISOTHERM recyclable?

Yes, ISOTHERM is not only made from recycled PET polymer but is itself, 100% recyclable.

Where can I buy ISOTHERM Thermal Insulation?

Visit www.isootherm.co.za for product information and stockists.

| Thickness | Density | Reduction in heat flow | Thermal Resistance "R" Value | Total R-value (incl ceiling and roof materials) | Noise Reduction Coefficient (NRC) | Available Sizes (length) | Available Sizes (width) | Climatic Zone |
|---------------|-----------------------|------------------------|------------------------------|---|-----------------------------------|--------------------------|-------------------------|---------------|
| 40mm (Budget) | 7.5kg/m ³ | Not yet tested | - | - | - | 10m | 750 / 120cm | - |
| 40mm | 10kg/m ³ | 69% | 0.72 | 1.07 | - | 10m | 750 / 120cm | - |
| 50mm | 10kg/m ³ | 72% | 0.90 | 1.25 | 0.6 | 10m | 750 / 120cm | - |
| 75mm | 10kg/m ³ | 78% | 1.36 | 1.71 | 0.75 | 8m | 750 / 120cm | - |
| 100mm | 10kg/m ³ | 83% | 1.81 | 2.16 | 0.75 | 6m | 750 / 120cm | - |
| 110mm * | 11.5kg/m ³ | Not yet tested | 2.39 | 2.79 * | Not yet tested | 5m | 750 / 120cm | 3 & 5 |
| 130mm * | 11.5kg/m ³ | Not yet tested | 2.83 | 3.23 * | Not yet tested | 5m | 750 / 120cm | 2 |
| 160mm * | 11.5kg/m ³ | Not yet tested | 3.48 | 3.88 * | Not yet tested | 4m | 750 / 120cm | 1, 4 & 6 |

Get ISOTHERM

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