



to 80% recycled glass making our Glasswool environmentally friendly and non-combustible. It also offers excellent sound absorption properties and is easy to install.

Aerolite has a variety of thicknesses for each climatic zone that complies with the requirements in SANS 10400-XA.

Think Pink Aerolite is Isover's thermal and acoustic ceiling insulation solution that reduces the amount of energy required to maintain a comfortable living environment and offers a payback in less than 2 years with continued savings thereafter, helping to reduce your electricity bills.

Aerolite is produced from a combination of naturally occurring minerals such as silica sand, which is a sustainable resource, and up

Thermal Resistance Calculation Tool for Ceilings

Climatic Zones	1	2	3	4	5	6
Estimated total R-value (m ² .K/W) of roof and ceiling materials (Tiles and RhinoBoard ceiling only)	0.35 - 0.40				0.41 - 0.53	0.35 - 0.40
Estimated minimum required R-value of insulation (m ² .K/W)	3.35	2.85	2.35	3.35	2.29	3.15
Thickness of Aerolite (mm)	135 mm	115 mm	100mm	135 mm	100mm	135 mm
R-value of Aerolite (m².K/W)	3.38	2.88	2.50	3.38	2.50	3.38

Aerolite 50 mm and 75 mm can be installed as top up in homes that already have insulation but do not meet the stipulated minimum requirements for new buildings in SANS 10400-XA.



Insulation that meets the requirements



The Regulator (NRCS) has published legislation regarding energy efficiency in new buildings (NBR-XA)

Here's what you need to know for your home's ceiling

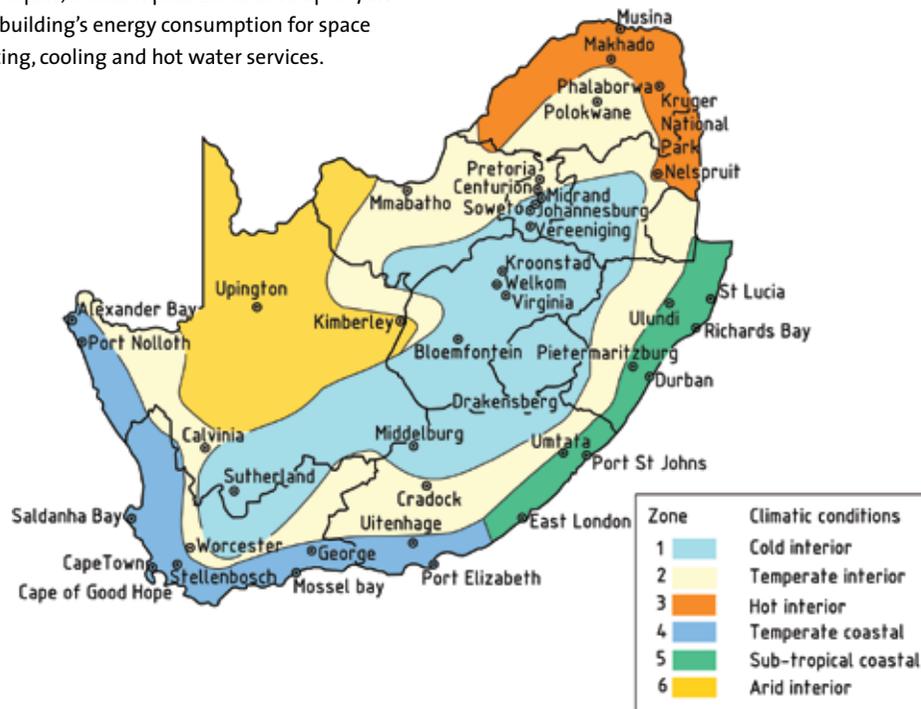
South Africa's mounting energy crisis means that we all need to think of innovative ways to save electricity in our homes and of products that can help you reduce our current electricity usage.

Buildings typically account for 40% of all energy consumed in South Africa and yet their potential to save energy is huge. Thermal insulation must be included in the design of all new buildings. This, in combination with energy saving techniques, makes it possible to save up to 78% of a building's energy consumption for space heating, cooling and hot water services.

The application of this new regulation is good news for the environment and will help you save electricity.

South Africa has been divided into six climatic zones according to their humidity and temperature variations.

An important consideration when building is to determine the relevant climatic zone as each climatic zone has a different **R-value requirement for ceilings**.



Roof and Ceiling requirement SANS 10400-XA "Deemed to satisfy"

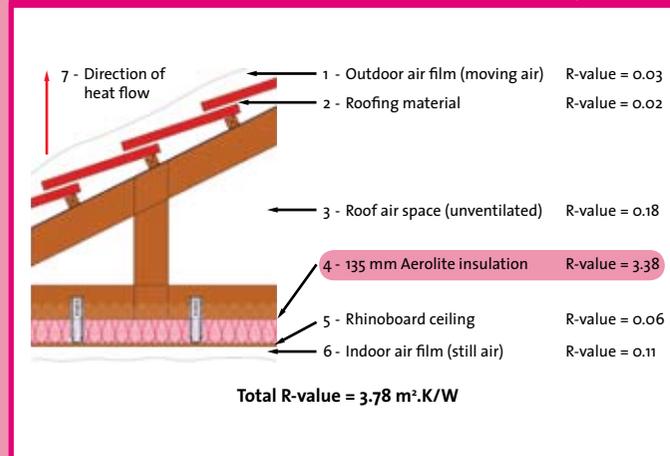
- Must achieve the minimum total R-value specified below:

Climatic zones	1	2	3	4	5	6
Minimum required total R-value (m ² .K/W) of your entire roof	3.70	3.20	2.70	3.70	2.70	3.50
Direction of heat flow °	↑	↑	↕	↑	↓	↑

° Indicates the direction in which your home loses or gains heat through the roof in each climatic zone.

A typical un-insulated home loses and gains up to 35% of its energy through the ceiling and this can be dramatically reduced by installing insulation of the correct thickness.

Example of heat flow and R-value calculation of a roof system



All material has an R-value, which is the ability of a product to resist the transfer of heat. Thermal insulation provides a high resistance to the flow of heat from the warm surface to the cold surface in your home. This limits the impact of the outside temperature, helping you maintain a comfortable living environment.

Insulation R-value should be indicated on the packaging.