



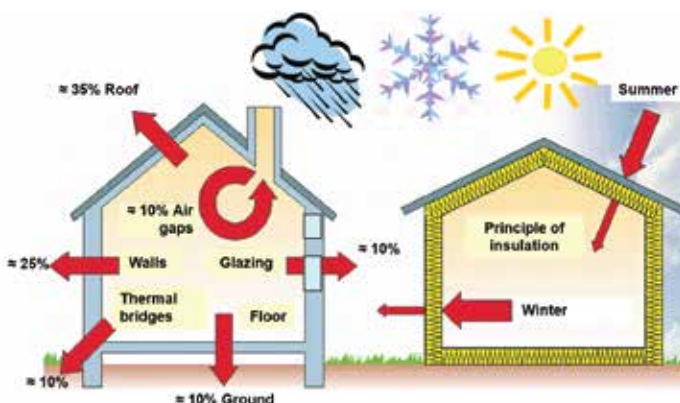
insulation... your thermal energy saver!

Insulation has become a vital part of all building developments not just with the legislation by NBR requiring that all new buildings and renovations requiring plan approval to be insulated but also with society's pressure to live a "greener" lifestyle.

JUMBO® Insulation facilitates both - providing insulation, saving electricity and making a contribution towards a "Greener" tomorrow by its contribution to reducing greenhouse gases.

40% of SA total energy currently used in buildings

Correctly insulating the building envelope in combination with energy saving techniques can control energy losses and reduce energy consumption by up to 78%



Features and Benefits

- 100% people and nature friendly
- 100% recyclable
- It will not absorb water and will dry naturally regaining its resistance and density
- Fire tested in accordance with SANS 10177-10 (428)
- Non-toxic, there are no chemical additives and it is completely odourless
- Maintenance free, it retains loft and does not degrade over time

JUMBO® Insulation IS FULLY COMPLIANT and has the SABS test and mark.

Product Specifications

Thickness	Metres per Roll	Roll width	Area Covered in m ² per Roll	Density per Roll kgs/m ³	*Weight per Roll in kgs	"R" Value	Packaging Colour
50mm	10	1.200	12.0	10.1	6	1.15	Green
100mm	6	1.200	7.2	10.1	7.2	2.20	Yellow
135mm	5	1.200	6.0	10.1	8.1	2.70	Purple

* Note: 10% variance allowable either up or down

R-VALUE = MATERIAL RATING FOR THEIR PERFORMANCE IN RESTRICTING HEAT TRANSFER.

This is expressed as the R-VALUE which is the measure of the materials resistance to heat transfer, alternatively known as thermal resistance. The higher the R- VALUE the greater the insulation effect.

Know the Legislation

The National Building Regulations (NBR) which came into effect on 9 November 2011 implemented two new standards to regulate energy usage and energy efficiency in buildings.

- SANS 10400-XA – Energy usage in buildings
- SANS 204 – Energy efficiency in buildings

All new buildings and extensions are required to comply with the new regulations which state that all new buildings and building extensions as per the building occupancy classes specified in the regulation will be required to have thermal insulation installed. Thermal Insulation is compulsory in the design of new buildings with a floor area > 80m².

Over and above the requirement to include insulation into the building, the overall roof assembly including the roof covering materials (tiles, metal sheeting) ceilings and the insulation, are required to meet a minimum total thermal resistance as specified for the various climatic zones.

(Ref. www.tiasa.org.za)

Levels of Insulation

The level of insulation will depend on the climatic zone, building construction type, and whether auxiliary heating and/or cooling is used.

The following deemed-to-satisfy rules are to be applied by the building owner at the design stage of the building if he chooses not to consider a rational design option. A roof and/or ceiling that are part of the building envelope must achieve the Total R-Value as specified in SANS 10400-XA for the direction of heat flow.

The following table below gives typical data and deemed-to-satisfy thicknesses of generic insulation products in accordance with SANS 204 Energy efficiency in buildings.

Map of the Climatic Zones and Recommended Levels of Insulation in your area.



Legend	Zone	Description	Major Centres	R-Value	Thickness
	1	Cold Interior	Johannesburg, Bloemfontein	3.38	135mm
	2	Temperate Interior	Pretoria, Polokwane	2.88	115mm
	3	Hot Interior	Louis Trichardt, Nelspruit	2.50	100mm
	4	Temperate Coastal	Cape Town, Port Elizabeth	3.38	135mm
	5	Sub-tropical Coastal	East London, Durban, Richards Bay	2.50	100mm
	6	Arid Interior	Upington, Kimberley	3.38	135mm

Recommended Levels of Insulation to Achieve Deemed-To-Satisfy Rule for Energy Efficiency in an Unventilated Roof and Ceiling Construction

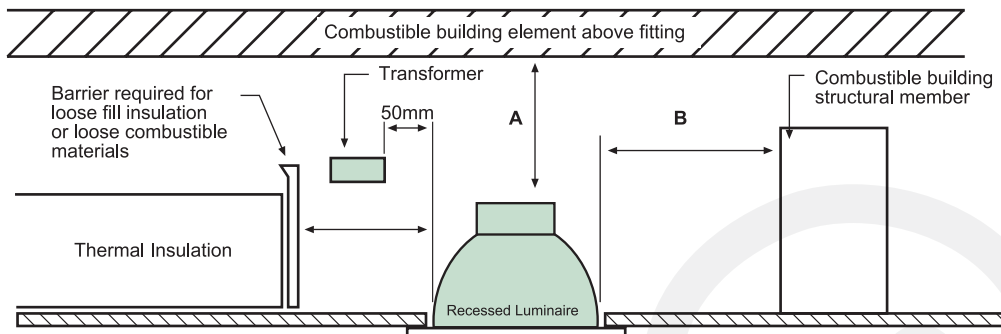
Climate Zones	1	2	3	4	5	6
Minimum required Total R-Value (m ² .K/W) (for roof solar absorptance of more than 0.55)	3.7	3.2	2.7	3.7	2.7	3.5
Direction of heat flow	Up	Up	Down and Up	Up	Down	Up
Estimated Total R-Value (m ² .K/W) of roof and ceiling materials (Roof covering & plasterboard only)	0.35 - 0.40			0.41 - 0.53	0.35 - 0.40	
Estimated Minimum added R-Value of Insulation (m ² .K/W)	2.30 - 3.35			2.15 - 2.29	3.10 - 3.15	

Generic Insulation Product	Density kg/m ³	Thermal conductivity W(m.k.)	Example: Roof construction description: metal/tile roof 22° - 45° pitch with horizontal ceiling. DTS - Recommended deemed-to-satisfy min thickness (mm) of bulk insulation product only: or RB: System option with addition of Radiant barrier over rafters - approx (mm) of bulk insulation required.											
			DTS product	RB system	DTS product	RB system	DTS product	RB system	DTS product	RB system	DTS product	RB system	DTS product	RB system
Flexible Polyester Blanket	11.5	0.16	160	120	140	100	120	80	160	120	110	75	150	120

The Right Insulation matters.... JUMBO insulation is 100% ECO & PEOPLE FRIENDLY

A well-insulated home or building will provide year-round comfort, cutting cooling and heating costs and reducing greenhouse emissions. JUMBO Insulation keeps your house cool in summer and warm in winter and will save you on electricity costs all year round. Spend a little more today and save year after year.

Installation Guidelines



Default Minimum Clearances for Recessed Luminaires

Dimension	Incandescent lamp	Halogen lamp
A - clearance above luminaire	50 mm	200 mm
B - side clearance to structural member	100 mm	200 mm
C - clearance to thermal insulation	50 mm	200 mm
D - clearance to supply transformer	50 mm	



Manufactured by
Platinum Fibre (Pty) LTD
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