



135mm White faced Fibre Roof Insulation on White PVC Coated Wire.

Insultrak® hosts demo day

A demonstration day was hosted by the Insultrak® founders and management, with representatives from the industry.

Attendees included members of the Thermal Insulation Products and Systems Association of Southern Africa (TIPSASA), including board members, South African Metal Cladding and Roofing Association (SAMCRA), technical representatives of the bulk faced-fibre roof insulation manufacturers in South Africa, technical representatives of secret-fix clip roof sheeting manufacturers in South Africa, representative of the roof fixing screw

manufacturers and various other attendees.

Best practice fitment

As shown in the photographs, the 135mm thick white-faced fibre roof insulation was already fitted on the test rig as per the product's specified installation method, ready for the fitment and application of the Insultrak® packer, roof sheeting clips and roof sheets.



135mm Faced Fibre Roof Insulation before installation.



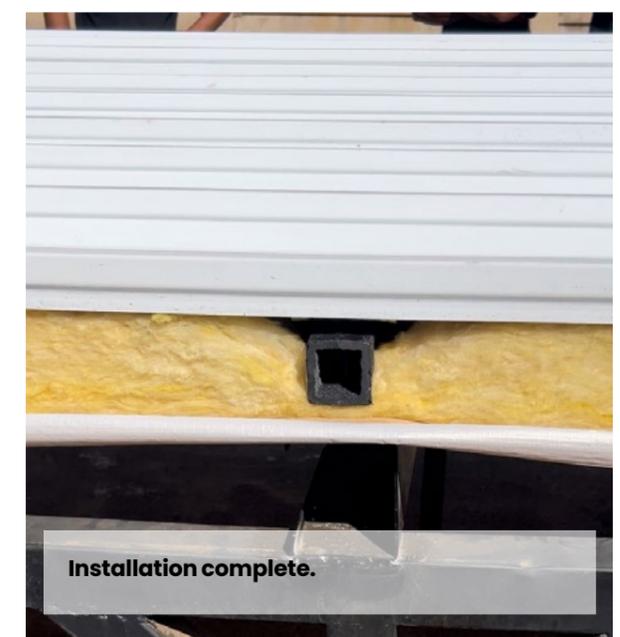
Insultrak® laid over the insulation on top of the purlins.



Roof sheet secret fix clip laid over Insultrak®.



Roof sheet clip fixed through Insultrak® and insulation into purlin.



Installation complete.



Roof sheets are clipped into position.



Roof sheet secret fix clip laid over Insultrak®.

This product was used as it is the thickest faced-fibre product manufactured in South Africa. It would therefore provide the worst-case scenario with regards to the loft of the insulation, stability of the **Insultrak®** packer thereon and maximum backward pressure on the roof-clip system.

Demonstrated performance

As previously demonstrated, the **Insultrak®** packer performed perfectly as required. This is due to various factors:

- Its extremely high strength characteristics under major pressure.
- The ease and speed of fixing through the **Insultrak®** packer.
- Being a hollow tube, the roof screw is

- visible and aligned correctly.
- Lightweight and easy to handle during installation.
- Excellent dimensional stability due to its square form.

SANS compliant

Market leading **Insultrak®** has evolved and developed over the years to become the first choice of roof insulation packer/ spacer for specifying professionals, and design engineers applying the required energy standards of SANS 10400-XA.

For more information, contact **Insultrak®**:
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(System Patent No: 2015/01267)

Roof Insulation Spacer/Packer

Insultrak® is a roof insulation spacer system designed specifically for use with faced flexible fibre and reflective foil roof insulation materials in over-purlin roof applications.

Insultrak® is a proprietary extruded polymer composite manufactured from 95% industrial mineral waste and recycled polymers, making it an eco-friendly "green" product. Insultrak® is manufactured in a standard dimension of 40mm x 40mm square for use with all thicknesses of faced flexible fibre and reflective foil roof insulation materials.

By being used as a spacer/packer between the insulation and the roof sheet, Insultrak® provides the necessary spacing to allow the faced fibre insulation to attain maximum installed thickness and significantly reduces backward pressure on the roof sheet or clip system. The use of Insultrak® in this application has shown to increase the thermal value of the insulation by up to 77% as opposed to the insulation being installed without any spacer/packer.

In the case of reflective foil laminate roof insulation materials their quoted Thermal Resistance (R-Values) according to SANS 1381-4:2013 are tested with a 40mm air gap on the "hot" side. The use of Insultrak® for these applications is therefore also perfectly suited and thereby ensures that the actual quoted thermal values are achieved.

Insultrak® is a solid spacer/packer with extremely high dimensional stability and strength, and will therefore not deteriorate, collapse or crack as has been found with foam spacers/packers. Insultrak® is non-combustible and therefore provides no additional fire load to a building. Proprietary spacer/packer systems such as Insultrak® are included in the new SANS 10400-XA Energy Regulations.

The following indicative Thermal Resistance (R-Values) for the relevant thickness of insulation in conjunction with a 40mm Insultrak® spacer/packer may be used for design purposes. Calculations are based on 70% nominal average thickness achieved including the catenary effect of the support wires using the Ashrae Zone Method. Plus the thermal value of the Insultrak® spacer with an R-Value of 0.44 m².K/W adds further thermal value to the system, using NFRC simulation conditions.

- 50mm Faced Flexible Fibreglass 12kg/m³ density – 1.49 m²K/w.
- 75mm Faced Flexible Fibreglass 12kg/m³ density – 1.88 m²K/w.
- 100mm Faced Flexible Fibreglass 12kg/m³ density – 2.26 m²K/w.
- 135mm Faced Flexible Fibreglass 12kg/m³ density – 2.78 m²K/w.

*Thermal Report available upon request.

Application Methodology

The Insultrak® spacers/packers are simply laid over the insulation on top of the purlin before fixing of the roof sheet, or clip system for secret fix roof sheeting. The roof is then fixed down in the standard method applied for the relevant roof sheet with the addition of longer fixing screws to accommodate the 40mm spacer/packer. Insultrak® is supplied in standard 3m lengths and bundled in packs of 25 lengths per pack.

Fire Performance

Insultrak® has been fire tested according to the SANS 10177-10 application test for over-purlin roof insulation systems with an A1 fire rated faced fibre roof insulation and achieved an A1 Non-combustible fire rating.

*Fire report available upon request.

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