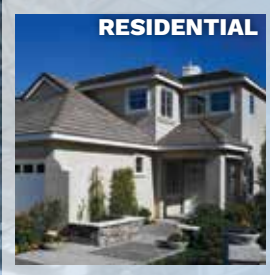


SISALATION®

Tried. Tested. Trusted. For over 50 years.

Reflective Foil Roof INSULATION



THE BENEFITS OF SISALATION®



Temperature Control: Sisalation® has proved effective and beneficial in building in the comfort factor, keeping the home and workplace cooler in summer and warmer in winter.



Thermal Resistance: R-Values (m².K)/W or thermal resistance is determined by the overall roofing or wall system design. (Visit the Sisalation® website for typical applications, calculations and advice.)



Dustproofs: Keeping the building as dust free as possible can be an important factor in reducing allergens in the air we breathe, thus reducing allergy and asthma symptoms.



Vapour Barrier: Sisalation® can contain condensation to force it to develop outside of the ceiling area so that it can be shed below the roof.



Fire: All Sisalation® products have been tested by Firelab. They have the following fire performance classifications for vertical and horizontal applications: Sisalation® 405: B/B1/2/H
Sisalation® FR405: B/B1/2/H&V-SP&USP – with and without sprinklers
Sisalation® FR430: B/B1/2/H&V-SP&USP – with and without sprinklers.



Economical: Easy to install Sisalation® is maintenance free and long-lasting. When installed as an exposed roof lining, lighting is greatly improved due to the foil's high reflectivity.



Energy Efficient: Sisalation® is totally compliant with the requirements for thermal insulation products as specified by the Energy Efficiency Standards, SANS 10400 XA.



Environmentally-friendly: The use of Sisalation® will impact positively on the environment. It helps reduce energy usage in buildings and the consumption of natural resources.

OCCUPANCY TABLE

FIRE RETARDATION – SANS 428

All South African thermal insulation products are to comply with National Standards and have to be tested in accordance with SANS 428:2007 Fire performance classification standards.

- Sisalation® GR 405 (Residential Grade) has a B/B1/2/H fire classification.
- Sisalation® FR405 (Commercial Grade) has a B/B1/2/H&V (SP & USP) fire classification.
- Sisalation® FR430 (Heavy Industrial Grade) has a B/B1/2/H&V (SP & USP) fire classification.
- Sisalation Fireshield™** NC 502 D/S has a A/A1/1/H&V (SP & USP) fire classification.

Classification Type	Class	Description of materials behaviours and occupancies
	B	Combustible
Surface fire Properties		
Classification Type	A1 / B1	No flame spread
	A2 / B2	Low flame spread (no flaming droplets or burning brand)
	A3 / B3	Low flame spread (with flaming droplets or burning brand)
	A4 / B4	Average flame spread (no flaming droplets or burning brand)
	A5 / B5	Average flame spread (with flaming droplets or burning brand)
	A6 / B6	Rapid fire spread

Class of Occupancy	Type of Occupancy
A1	Entertainment & Public Assembly
A2	Theatrical & indoor sport
A3	Places of instruction
A4	Worship
A5	Outdoor sport
B1	High risk commercial
B2	Moderate risk commercial
B3	Low risk commercial
C1	Exhibition hall
C2	Museum
D1	High risk industrial
D2	Moderate risk industrial
D3	Low risk industrial
D4	Plant room
E1	Place of detention
E2	Hospital
E3	Other institutional residences
E4	Health care
F1	Large shop
F2	Smallshop
F3	Wholesalers' store
G1	Offices
H1	Hotel
H2	Dormitory
H3	Domestic residence
H4	Dwelling house
H5	Hospitality
J1	High risk storage
J2	Moderate risk storage
J3	Low risk storage
J4	Parking garage



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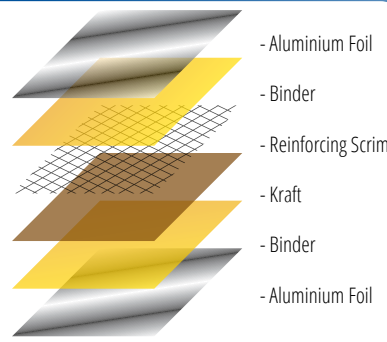
Tried. Tested. Trusted.
For over 50 years.

Sisalation®
Grades include: GR405, FR405 & FR430

Sisalation Fireshield™
Grade classification: NC 502 D/S

PRODUCTS

405 RESIDENTIAL



Sisalation® 405 is a light grammage, double sided reflective foil laminate incorporating layers of aluminium foil, high strength kraft paper and reinforcing scrim bonded together with a binder.

Category: double sided reinforced membrane.

Classification A. Tested in accordance with SANS 1381-4:2013.

Application: Ideally suited for homes and townhouses.

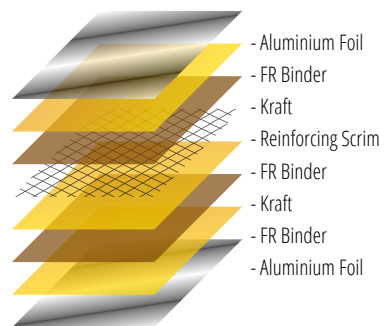
Size: Length: 40m | Width: 1.25m | Area: 50m².

R-Value: 1.38 for under Tile or Sheeting, with a ceiling for *downwards* heat-flow when used with minimum 15mm airspace. | 0.73 for under Tile or Sheeting, with a ceiling for *upwards* heat-flow when used with minimum 15mm airspace.

Fire Rating: B/B1/2/H. Tested in accordance with SANS428 protocol.

Nominal Weight & Thickness: 160 grams per m² / 240 microns

FR405 FIRE RETARDANT: LIGHT INDUSTRIAL



Sisalation® FR405 is an economical, durable, double sided reflective foil laminate incorporating advanced fire retardant properties.

Category: double sided reinforced membrane.

Classification A. Tested in accordance with SANS 1381-4:2013.

Application: Ideally suited for offices, mini factories, clinics and schools.

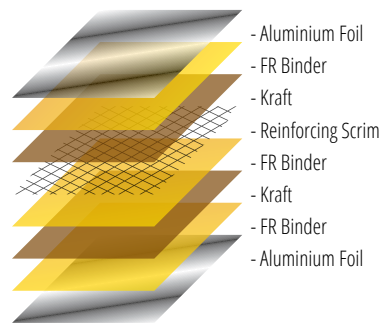
Roll Size: Length: 40m | Width: 1.25m | Area: 50m².

R-Value: 1.38 for under Tile or Sheeting without a ceiling for *downwards* heat-flow when used with minimum 20mm airspace. | 0.67 for under Tile or Sheeting without a ceiling for *upwards* heat-flow when used with minimum 20mm airspace.

Fire Rating: B/B1/2/H&V-SP&USP. Tested in accordance with SANS 428 protocol (with or without a sprinkler system) for horizontal and vertical applications.

Nominal Weight & Thickness: 185 grams per m² / 290 microns

FR430 FIRE RETARDANT: HEAVY INDUSTRIAL



Sisalation® FR430 is a heavy duty, double sided reflective foil laminate incorporating advanced fire retardant properties.

Category: double sided reinforced membrane.

Classification A. Tested in accordance with SANS 1381-4:2013.

Application: Ideally suited for industrial and commercial buildings.

Roll Size: Length: 40m | Width: 1.25m | Area: 50m².

R-Value: 1.38 for under Sheeting without a ceiling for *downwards* heat-flow when used with minimum 20mm airspace. | 0.67 for under Sheeting without a ceiling for *upwards* heat-flow when used with minimum 20mm airspace.

Fire Rating: B/B1/2/H&V-SP&USP. Tested in accordance with SANS 428 protocol (with or without a sprinkler system) for horizontal & vertical applications as per SANS10177 Part 11 Large Scale Test.

Nominal Weight & Thickness: 256 grams per m² / 340 microns

PRODUCT FUNCTION

Sisalation®, when used in conjunction with an airspace, is a highly effective thermal insulating membrane due to the high reflectivity and low emissive properties of the aluminium foil surfaces.

This combination makes Sisalation an excellent barrier to heat flow via radiation.

When installed in industrial buildings as an exposed roof lining, the reflectivity of the foil will enhance the lighting of the building considerably.

PRODUCT DURABILITY

Resistance of Acids and Alkalis

Sisalation® must not be used in contact with wet concrete or exposed continuously to a corrosive environment.

Resistance to Copper

Sisalation® must not come into contact with copper surfaces due to electrolytic action.

Permanence

Excellent in normal building application, however not for direct outdoor exposure and should be covered with roofing material as soon as possible after installation. Should unusual conditions exist, the suitability of the material should be established by contacting a technical representative of the company.

Typical Examples of the Thermal Resistance Values achieved of Double Sided Reflective Foil Insulation when tested with different air spaces

Description	Temperature range: 36 °C/10 °C (mean 23 °C)		
	(Rsys) m ² .K/W	(Rsys) m ² .K/W	(Rsys) m ² .K/W
Horizontal Installation	0/80 (mm)	20/80 (mm)	40/60 (mm)
Air gaps system: above/below			
Double Sided Reflective Foil	Heat flow direction: Downwards		
	1.276	1.385	1.433
Double Sided Reflective Foil	Heat flow direction: Upwards		
	0.396	0.595	0.571

Referral: TIPSASA Technical Code 2017

PRODUCT WARNING

- All information used in this publication is correct at time of going to print and is based on our experience and given in good faith.
- Constantia reserves the right to change product specifications without notification.
- The quality of Sisalation® products is in accordance with SANS 10400 Building Standards on condition that the product has been correctly installed as per the manufacturer's instructions and not damaged by after trades or roof deterioration, water leaks, exposure to acids, alkali's and the like.

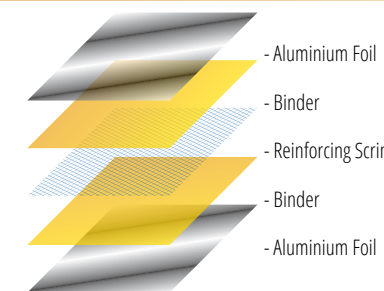
SISALATION

FiRESHIELD™ NON-COMBUSTIBLE RADIANT BARRIER ROOF INSULATION



There's no match for it.

Sisalation Fireshield™ NC 502 D/S



NC 502 D/S is a double sided aluminium foil radiant barrier specifically designed for Heavy Industrial (e.g. factories), Commercial (e.g. shopping centres), or any place where large gatherings of people may occur (e.g. hospitals, places of worship, entertainment halls).

Category: Non-combustible double-sided reflective foil insulation radiant barrier.

Fire Classification: A/A1/1/H&V (SP & USP) - tested in terms of SANS 10177.

Application: Hospitals, factories, entertainment halls, etc.

See occupancy table.

Roll Size: Length: 40m | Width 1.25m | Area 50m² | **Weight:** 140 g/m²

R-Value: 1.38