

TIPSASA – FIRE PERFORMANCE CLASSIFICATION REGISTER – AUGUST 2015
Tested and classified in accordance with SANS 10400-T & SANS 428:2012

IMPORTANT NOTICE:

- 1) Insulation, composite insulation products and composite panels shall be tested with the maximum core or insulation thickness as stated in SANS 204. **DO NOT** use insulation products in conjunction with other insulation types for “cheaper options” in order to comply with SANS 10400-XA Energy usage in buildings, unless it was tested to be used as such.
- 2) The classification shall apply to material thicknesses equal or less than the thickness as indicated in the test report.
- 3) When in doubt please contact the Association for assistance Tel: 0861 000 334 Mobile: 082 305 8559

Table 1: BULK INSULATION (Flexible or Loose fill) Register (Tested in accordance with SANS 10177-5 & SANS 10177-10)
[Generally installed on top of ceiling in buildings]

Note: Bulk ceiling insulation is generally un-faced UNLESS SPECIFIED which then changes the product classification

Product/Brand Name	Thick (mm)	Type	Insulation manufacturer / Sole distributor	Fire report number	Report date	Fire Classification
*Aerolite (Think Pink)	135	Glass wool	Isover Saint Gobain	FTC13-088	2013/08/20	A/A1/1
*Eco Insulation	75	Cellulose fibre	Eco Insulation	FTC12-123	2012/12/04	B/B1/2 H only
*Fabufill (Colour White)	100	Polyester fibre	Platinum Fibre	FTC11-085	2011/09/19	B/B1/2 H only
*Isotherm (Colour Green)	100	Polyester fibre	Brits Non-woven	FTC13-014	2013/05/06	B/B1/2 H only
*Romatherm (White)	100	Polyester fibre	Datlink Insulation	FTC11-116	2011/10/26	B/B1/2 H only
*Thermguard	100	Cellulose fibre	Thermguard	FTC10-170	2011/03/03	B/B1/2 H only

SAFETY ALERT – CEILING INSULATION

Surrounding electrical cables and wiring: Where possible the electrical cable and wiring should be placed above the insulation.
Recessed ceiling lights (Down lights) -The presence of electrical fittings and wiring may necessitate a reduction or removal of insulation in some areas. For example, **do not** put insulation over or around recessed light fittings like down lights mounted in the ceiling and transformers - leave a minimum gap of 50mm around their perimeters free of insulation to allow heat generated by the light fitting to dissipate.

Table 2: BULK INSULATION (Rigid un-faced) Register (Tested in accordance with SANS 10177-5 & SANS 10177-10)
[Installed as suspended ceiling]

Note: Rigid bulk insulation is generally un-faced UNLESS SPECIFIED which then changes the product classification

*ThermocousTex Natural Board	35	Polyester board	Datlink Insulation	FTC15-004(a)	2015/07/07	B/B1/2 H only
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Table 3: BULK INSULATION (Rigid faced) Register (Tested in accordance with SANS 10177-5 & SANS 10177-10)
[Installed as suspended ceiling]

Currently no products on register, either not tested or discontinued.

Table 4: BULK INSULATION (Rigid un-faced) register (Tested in accordance with SANS 10177-5, SANS 10177-10 & SANS 10177-11)
[Generally installed under roof & over purlins and/or side cladding in buildings]

Note: Bulk rigid insulation is generally un-faced UNLESS SPECIFIED which then changes the product classification

*Isoboard	80	XPS	Isofoam SA (Pty) Ltd	FTC10-103	2010/10/07	B/B1/2/H&V (SP & USP)
*Neopor® BASF NE 2200	120	EPS	Technopol (SA) (Pty) Ltd	FTC13-072	2013/09/05	B/B1/2/H&V (USP)
*StyFRene (BASF material)	100	EPS	Saint Gobain Isover	FTC13-084	2013/08/19	B/B1/2/H&V (USP)
*StyFRene (BASF material)	100	EPS	Technopol	FTC13-084	2013/08/19	B/B1/2/H&V (USP)

Table 5: COMPOSITE BULK INSULATION – Flexible (Faced) Register
(Tested in accordance with SANS 10177-5, SANS 10177-10 & SANS 10177-11)

[Generally installed under roof & over purlins and/or side cladding in buildings]

Note: Composite flexible bulk is a combination of a facing/reflective foil/vinyl and a bulk insulation material (Blanket)

*Alutherm Fibre Glass AFW(MF)	50	Bubblefoil/Glass	Africa Thermal Insulation	FTC10-001	Retest due	B/B1/2/H only (USP)
*Alutherm Polyester Fibre	50	Bubblefoil/Polyester	Africa Thermal Insulation	FTC07-102	Retest due	B/B1/2/H only (USP)
*Factorylite WMF	135	WMF/Fiberglass	Saint-Gobain Isover	FTC10-129	2010/11/15	A/A1/1/H only (SP & USP)
*Factorylite Foil Faced	135	FF/Fiberglass	Saint-Gobain Isover	FTC13-099 (c)	2013/09/06	A/A1/1
*MBI Foil Faced	135	Foil/Fiberglass	Granric Insulation	FTC 13-115 (a)	2013/09/05	A/A1/1
*MBI White Faced	135	White/Fiberglass	Granric Insulation	FTC 13-115 (b)	2013/09/05	A/A1/1
*Massterline White Faced	50	Foil/Fiberglass	IC & D	FTC09-032	Retest due	B/B1/2/H only (USP)
*Massterline Foil Faced	50	Foil/Fiberglass	IC & D	FTC09-150	Retest due	B/B1/2/H only (USP)
*Starlite AC (Acrylic) Foil Faced	50	Foil/Fiberglass	D & D Roof Insulations	FTC09-046 a	2012/12/11	A/A1/1/H&V (SP & USP)
*Starlite (Glass Fibre) White Faced	100	Foil/Fiberglass	D & D Roof Insulations	FTC10-133 a	2012/12/11	A/A1/1/H&V (SP & USP)
*Starlite (Glass Fibre) Foil Faced	100	Foil/Fiberglass	D & D Roof Insulations	FTC10-133 a	2012/12/11	A/A1/1/H&V (SP & USP)
*Starlite PH (Phenolic) White Faced	100	Foil/Fiberglass	D & D Roof Insulations	FTC12-057a	2012/08/29	A /A1/1/H only (SP& USP)
*Starlite PH (Phenolic) Foil Faced	50	Foil/Fiberglass	D & D Roof Insulations	FTC12-057b	2012/08/29	A /A1/1/H only (SP& USP)
*Starlite Foil (AFT Faced)	100	Foil/Fiberglass	D & D Roof Insulations	FTC12-130	2012/12/03	A /A1/1/H only (SP& USP)
*ThermocousTex Foil Faced	50	Foil/Polyester	Datlink Insulation	FTC15-004(b)	2015/07/08	B/B1/2/H (USP)

All information, recommendation or advice contained in this publication is given in good faith to the best of TIPSASA's knowledge and based on current procedures in effect.
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TIPSASA – FIRE PERFORMANCE CLASSIFICATION REGISTER – AUGUST 2015 (Continued)
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Table 6: COMPOSITE BULK INSULATION – Rigid (Faced) Register
(Tested in accordance with SANS 10177-5, SANS 10177-10 & SANS 10177-11)
[Generally installed under roof & over purlins and/or side cladding in buildings]

Note: Composite rigid bulk is a combination of a facing/reflective foil/vinyl and a bulk insulation material (Board)

Product/Brand Name	Thick (mm)	Type	Insulation manufacturer / Sole distributor	Fire report number	Report date	Fire Classification
*Factoryboard WMF	50	WMF/Fiberglass	Saint-Gobain Isover	FTC10/169	2011/03/02	B/B1/2/H&V (SP & USP)
*Factoryboard Foil Faced	50	Foil Faced/Fiberglass	Saint-Gobain Isover	FTC10/132	2010/12/01	B/B1/2/H&V (SP & USP)
*Factoryboard LR3010B	50	Foil Faced/Glasswool	Saint-Gobain Isover	FTC11/062	2011/07/19	B/B1/2/H&V (SP & USP)
*Kulite White Faced	25	White Alufoil / EPS	Saint-Gobain Isover	FTC09-106	Retest due	B/B1/2/H only (USP)
*Kulite White Vynide Faced	25	White Vynide / EPS	Saint-Gobain Isover	FTC11-048	2011/06/15	B/B1/2/H only (USP)
*Lambdaboard	40	White Faced / PIC	Rigifoam	FTC09-140	Retest due	B/B1/2/H&V (SP)

Table 7A: REFLECTIVE FOIL LAMINATES used as RADIANT BARRIER/UNDERTILE MEMBRANE Register
(Tested in accordance with SANS 10177-5 & SANS 10177-10)
[Generally installed under roof & over rafters in residential applications]

Product/Brand Name	Type	Insulation manufacturer / Sole distributor	Fire report number	Report date	Fire Classification
*Polyminium 201FR	Foil	P & P Plastics	FTC11/044	2011/06/14	B/B1/2 H only
*Polyminium 202FR	Foil	P & P Plastics	FTC11/044	2011/06/14	B/B1/2 H only
*Sisalation HF2	Foil	Afripack Coatings	FTC10/147b	2011/03/05	B/B1/2 H only
*Sisalation 405	Foil	Afripack Coatings	FTC11/106	2011/10/01	B/B1/2 H only
*Spunsulation 3 Radiant Barrier	Foil	Spunchem International	FTC11/032a	2012/12/19	B/B3/3 H only
*Spunsulation 4 Contractors Choice	Foil	Spunchem International	FTC11/032a	2012/12/19	B/B1/2 H only
*Spunsulation 5 Light Radiant Barrier	Foil	Spunchem International	FTC11/032a	2012/12/19	B/B1/2 H only

Table 7B: REFLECTIVE FOIL LAMINATES Register
(Tested in accordance with SANS 10177-5, SANS 10177-10 & SANS 10177-11)
[Generally installed over purlins and/or side cladding in Industrial Buildings]

Product/Brand Name	Type	Insulation manufacturer / Sole distributor	Fire report number	Report date	Fire Classification
*Alububble D10 Code 2906 single	Bubble foil	Africa Thermal Insulation	FTC09-003	Retest due	B/B1/2/H only (SP & USP)
*Alububble D10 Code 1983 double	Bubble foil	Africa Thermal Insulation	FTC09-105	Retest due	B/B1/2H only (SP)
*Alucushion FR D10 Code 2906A	Bubble foil	Sealed Air Africa	FTC11-001	2011/03/19	B/B1/2/H only (SP & USP)
*Alucushion FR D10 Code 1983	Bubble foil	Sealed Air Africa	FTC08-064	Retest due	B/B1/2/H only (SP)
*Spunsulation Illumina	Foil	Spunchem Africa	FTC12-001	2012/03/22	B/B1/2/H only (SP)
*Sisalation FR 405	Foil	Afripack Coatings	FTC11-012	2011/03/28	B/B1/2/H&V (SP & USP)
*Sisalation FR 430	Foil	Afripack Coatings	FTC10-174a	2011/03/04	B/B1/2/H&V (SP & USP)
*Spunsulation 5 Industrial	Foil	Spunchem Africa	FTC11/098b	2011/10/01	B/B1/2/H&V (SP & USP)

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Fire performance classification of thermal insulated building envelope systems in accordance with SANS 428:2012

The fire performance classification of products is required in terms of SANS 10400 Part T Fire Protection. Refer section 4.5 subsection 4.5.3, section 4.12 subsection 4.12.1.5, and section 4.13 subsection 4.13.1; which states, quote "When any insulation, roof lining or waterproof membrane not used as a ceiling and used under a roof covering as part of a roof assembly, is tested in accordance with SANS 10177-5 and found to be combustible, such material shall be acceptable should it be classified, marked and installed in accordance with the requirements of SANS 428" unquote. The classified products shall bear the manufacturer's name; date manufactured, batch number, trade name and SANS 428 Classification. This classification shall be fixed permanently to the original product and container/packaging and include the end-use conditions of approval, i.e. Fire Performance Classification.

In accordance with the TIASA Fire Testing Protocol the fire classification remains valid for a period of five calendar years from date of issue, unless cancelled or revoked. These classifications apply only to the specimens tested. Should the relevant South African National Standards be amended during the validity of this classification period, the product is to be re-tested in accordance with the amended SANS Standards.

1. Classification Type Combustibility	Class	Description of materials behaviour and occupancies
	A	Non-combustible
	B	Combustible
Surface Fire Properties		
2. Classification Type Surface Fire Properties	A1 or B1	No flame spread
	A2 or B2	Low flame spread (no flaming droplets or burning brand)
	A3 or B3	Low flame spread (with flaming droplets or burning brand)
	A4 or B4	Average flame spread (no flaming droplets or burning brand)
	A5 or B5	Average flame spread (with flaming droplets or burning brand)
	A6 or B6	Rapid fire spread

3. Use of products in accordance with Occupancy Classifications see Regulation A20
The symbols below shall be used to indicate the designated use of materials in buildings.

Class of Occupancy	Type of Occupancy	Use	Class of Occupancy	Type of Occupancy	Use
A1	Entertainment & Public Assembly	1	E3	Other institutional (residential)	1
A2	Theatrical & indoor sport	2	E4	Health care	2
A3	Places of instruction	2	F1	Large shop	3
A4	Worship	2	F2	Small shop	3
A5	Outdoor sport	4	F3	Wholesalers' store	3
B1	High risk commercial	2	G1	Offices	3
B2	Moderate risk commercial	2	H1	Hotel	1
B3	Low risk commercial	3	H2	Dormitory	1
C1	Exhibition hall	2	H3	Domestic residence	3
C2	Museum	2	H4	Dwelling house	3
D1	High risk industrial	2	H5	Hospitality	3
D2	Moderate risk industrial	2	J1	High risk storage	2
D3	Low risk industrial	3	J2	Moderate risk storage	2
D4	Plant room	1	J3	Low risk storage	3
E1	Place of detention	1	J4	Parking garage	4
E2	Hospital	1			

Notes: 1) The number 1 under "use" indicates that only non-combustible products are to be used in that particular building occupancy classification.
2) The classification as listed above (numbers 2, 3 & 4) implies that products with equal or better classification are also suitable for usage. Classification listed is for both sprinklered and un-sprinklered buildings, with the proviso that the product has been successfully evaluated as suitable for use with sprinklers.

4. Permissible Application	5. Tested with sprinklers (SP) or without sprinklers (USP)
Horizontal (under-roof) only	H Not protected by a sprinkler system. USP
Vertical (side cladding) only	V Protected by a sprinkler system. SP
Horizontal and vertical application	H & V

Example of Fire Performance Classification

1. Combustibility	2. Surface Fire Properties	3. Use per Occupancy	4. Application	5. Sprinkler (SP) or un-sprinklered (USP)
A = Non-combustible	A1 = No flame spread	1 = No limitations	H & V = Horizontal & Vertical	
B = Combustible	B1 = No flame spread	2/3/4 = Use list for Building Occupancy Classes	H / V / or H & V = Horizontal & Vertical	Tested SP or USP State SP or USP

Fire performance classification of thermal insulated building envelope systems in accordance with SANS 428:2012

Classification notes:

1. Products are first tested to establish the combustibility rating – A (Non-combustible) or B (Combustible).
2. Products are tested to determine surface fire properties – Example: A1 and/or B1, B2, B3 or B4.
3. Symbols are given to indicate the designated use of materials in buildings.

Classification criteria for usage:

1 = Non-combustible/no limitations

2 - 4 = The classification as listed implies that products with equal or better classifications are also suitable.

Classification listed is for both sprinklered and un-sprinklered buildings, with the proviso that the product has been successfully evaluated as suitable for use with sprinklers

4. For buildings of more than two storeys all roof/ceiling constructions shall be non-combustible
5. The suitability of products in terms of their ability to propagate smouldering combustion is determined as being acceptable or non-acceptable, and would be classified separately. This is only applicable to insulation installed on top of ceilings.
6. Products are tested for a particular application – horizontal (H) or vertical (V) in various occupancy classes of buildings. For vertical non-encapsulated insulation the suitability of the product is determined as being acceptable or non-acceptable, and would be classified separately
7. The classification listed for use of materials is for both sprinklered (SP) and un-sprinklered (USP) buildings, with the proviso that the product has been successfully evaluated as suitable for use with sprinklers.

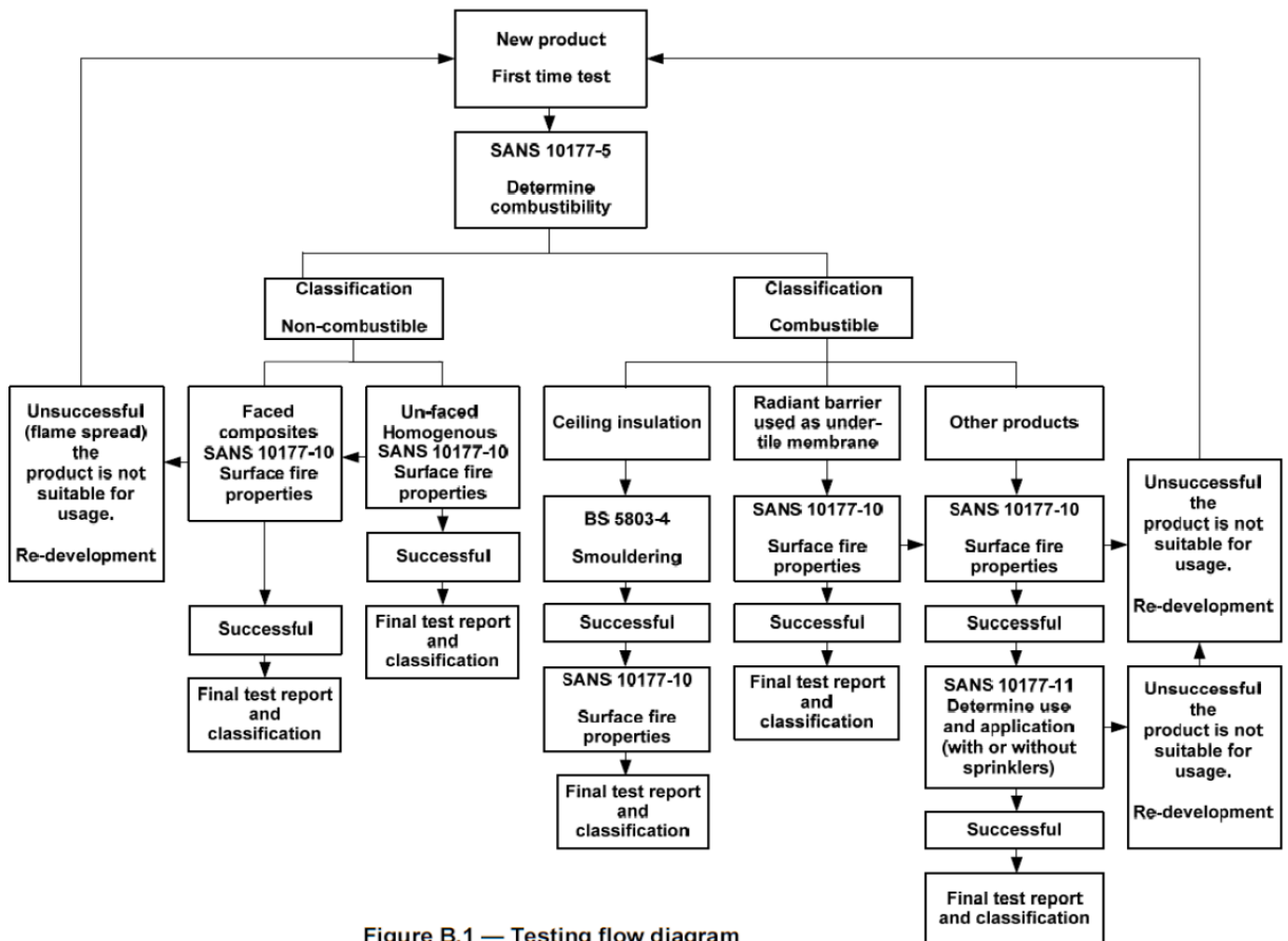


Figure B.1 — Testing flow diagram

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