



TIPSASA FIRE REGISTER

December 2024

ABSTRACT

Thermal Insulation Products tested in accordance with SANS 53501-1

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TABLE 1: BULK INSULATION PRODUCTS - UNFACED (FLEXIBLE)

SAFETY ALERT – CEILING INSULATION

Heat-producing fixtures should be isolated from the thermal insulation to prevent fire hazards. These include recessed lighting fixtures.
Install non-combustible downlight protection covers, to protect the insulation.

PRODUCT/ BRAND NAME (Alphabetically)	THICKNESS MM	DESCRIPTION	INSULATION MANUFACTURER / SOLE DISTRIBUTOR	REPORT DATE	REPORT NUMBER	CLASSIFICATION SANS 53501-1	Test Methods				
							SANS 11820 Non-combustibility	SANS 1743 Calorific Value	SANS 53823 Single Burning Item	SANS 11925-2 Ignitibility	SANS 10177-11 Large Scale
*Aerolite	135	Glass wool	Saint-Gobain Isover	2024-05-22	IT 24-05-00013	A1	*	*	*	*	N/A
*Energylite	50	Glass wool	Saint-Gobain Isover	2024-09-28	IT 24-09-00043	A1	*	*			N/A
*Fabufill	100	Polyester Fiber	Platinum Fibre	2024-10-21	IT 24-10-00061	B-s1, d1			*	*	N/A
*Granric Energywool	135	Glass Wool	Brits Nonwoven	2024-04-15	IT 24-04-00006	A1	*	*			N/A
*Granric Flexiwool	135	Glass Wool	Brits Nonwoven	2024-04-12	IT 24-04-00007	A1	*	*			N/A
*Isotherm	145	Polyester Fiber	Brits Nonwoven	2024-09-17	IT 24-09-00060	B-s1, d1			*	*	N/A
*Knauf Ceiling Roll	50-100	Mineral Wool	Knauf Insulation Ltd	2023-08-10	0402-CPR-C000007	A1	*	*			N/A
*Knauf FactoryClad Roll 35	60-220	Mineral Wool	Knauf Insulation Ltd	2023-08-10	0402-CPR-C000007	A1	*	*			N/A
*Knauf OmniFit Roll 34	100-180	Mineral Wool	Knauf Insulation Ltd	2023-08-10	0402-CPR-C000007	A1	*	*			N/A
*Thermguard	100	Cellulose Fiber Loose	Thermguard CC	2024-04-04	IT 24-04-00003	B-s2, d0			*	*	N/A

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TABLE 2: BULK INSULATION PRODUCTS - UNFACED (RIGID)

PRODUCT/ BRAND NAME (Alphabetically)	THICKNESS MM	DESCRIPTION	INSULATION MANUFACTURER / SOLE DISTRIBUTOR	REPORT DATE	REPORT NUMBER	CLASSIFICATION SANS 53501-1	Test Methods				
							SANS 11820 Non-combustibility	SANS 1743 Calorific Value	SANS 53823 Single Burning Item	SANS 11925-2 Ignitability	SANS 10177-11 Large Scale
*Cavitybatt	63.5	Glass Wool with scrim	Saint-Gobain Isover	2024-09-25	IT 24-09-00044	A1	*	*			N/A
*Cavitybatt	102	Glass Wool with scrim	Saint-Gobain Isover	2024-09-25	IT 24-09-00044	A1	*	*			N/A
*Factoryboard Unfaced	50	Glass Wool Board	Saint-Gobain Isover	2024-09-24	IT 24-09-00054	A1	*	*			N/A
*EPS FRCel 20DV	60	EPS	Technopol SA	2023-08-04	IT 23-08-00009	B-s1, d0			*	*	N/A
*Isoboard	80	XPS	Isofoam SA (Pty) Ltd	2024-10-17	IT 24-10-00063	B-s1, d0			*	*	N/A
*Knauf DriTherm Cavity Slab	150	Mineral Wool	Knauf Insulation Ltd	2023-08-10	0402-CPR-C000007	A1	*	*			N/A
*Knauf OmniFit Slab 35	50-150	Mineral Wool	Knauf Insulation Ltd	2023-08-10	0402-CPR-C000007	A1	*	*			N/A
*Soundlite Ceiling Tile	40	Glass Wool	Saint-Gobain Isover	2024-09-25	IT 24-09-00046	A1	*	*			N/A
*Summit XPS	80	XPS	Swartland Insulation	2023-02-16	IT 23-02-00001	B-s1, d1		*	*	*	N/A

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TABLE 3: COMPOSITE BULK INSULATION PRODUCTS - FACED (FLEXIBLE)

PRODUCT/ BRAND NAME (Alphabetically)	THICKNESS MM	DESCRIPTION	INSULATION MANUFACTURER / SOLE DISTRIBUTOR	REPORT DATE	REPORT NUMBER	CLASSIFICATION SANS 53501-1	Test Methods				
							SANS 11820 Non-combustibility	SANS 1743 Calorific Value	SANS 53823 Single Burning Item	SANS 11925-2 Ignitibility	SANS 10177-11 Large Scale
*Alucool White Faced	135	Glass Mineral Wool	Africa Thermal Insulations	2024-10-24	IT 24-04-00051	A2-s1, d0	*		*		N/A
*Alucool Foil Faced	135	Glass Mineral Wool	Africa Thermal Insulations	2024-10-24	IT 24-04-00052	A2-s1, d0	*		*		N/A
*Alucool Black	135	Glass Mineral Wool	Africa Thermal Insulations	2024-04-15	IT 24-04-00005	A2-s3, d1	*		*		N/A
*Ductwrap Foil Faced	50	Glass Wool with facing	Saint-Gobain Isover	2024-09-26	IT 24-09-00048	A2-s1, d0	*		*		N/A
*FRK Duct Insulation	50	Glass Wool with facing	Brits Nonwoven	2024-08-30	IT 24-05-00017	A2-s1, d0	*		*		N/A
*Factorylite Black Faced	135	Glass Wool with facing	Saint-Gobain Isover	2024-10-22	IT 24-09-00057	A2-s1, d1	*		*		N/A
*Factorylite Foil Faced	135	Glass Wool with facing	Saint-Gobain Isover	2024-09-26	IT 24-09-00047	A2-s1, d1	*		*		N/A
*Factorylite White Faced	135	Glass Wool with facing	Saint-Gobain Isover	2024-10-22	IT 24-10-00058	A2-s1, d1	*		*		N/A
*Granric MBI Foil	150	Glass Wool with facing	Brits Nonwoven (Pty) Ltd	2024-07-10	IT 24-07-00035	A2-s1, d0	*		*		N/A
*Granric MBI White	135	Glass Wool with facing	Brits Nonwoven (Pty) Ltd	2024-07-11	IT 24-07-00042	A2-s1, d0	*		*		N/A
*Starlie Foil Faced	150	Glass Wool with facing	D&D Roof Insulations	2024-09-10	IT 24-09-00065	A2-s1, d0	*		*		N/A

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TABLE 5: REFLECTIVE FOIL/RADIANT BARRIER INSULATION

PRODUCT/ BRAND NAME (Alphabetically)	THICKNESS MM	DESCRIPTION	INSULATION MANUFACTURER / SOLE DISTRIBUTOR	REPORT DATE	REPORT NUMBER	CLASSIFICATION SANS 53501 -1	Test Methods				
							SANS 11820 Non-combustibility	SANS 1743 Calorific Value	SANS 53823 Single Burning Item	SANS 11925-2 Ignitibility	SANS 10177-11 Large Scale
*Alubrite 7070		Double sided foil	Africa Thermal Insulations	2024-10-24	IT 24-10-00053	A2-s1, d0	*		*		N/A
*EnviroTuff A2 FireBarrier		Double sided foil	Rhino Plastics (Pty) Ltd	2024-09-16	IT 24-09-00059	A2-s1, d0		*	*		N/A
*EnviroTuff 202FR		Double sided foil	Rhino Plastics (Pty) Ltd	2023-07-01	IT 23-02-00002	B-s1, d1	*	*	*	*	N/A
*EnviroTuff 203ECO		Double sided foil	Rhino Plastics (Pty) Ltd	2023-10-16	IT 23-11-00009	C-s1, d1	*	*	*	*	N/A
*IsoFoil Industrial FR Plus		Double sided foil	Brits Nonwoven	2024-07-10	IT 24-07-00036	A2-s1, d0		*	*		N/A
*Marley Superior 202FR		Double sided foil	Rhino Plastics (Pty) Ltd	2023-07-01	IT 23-02-00002	B-s1, d1	*	*	*	*	N/A
*Saftherm 202FR		Double sided foil	Rhino Plastics (Pty) Ltd	2023-07-01	IT 23-02-00002	B-s1, d1	*	*	*	*	N/A
*Sisalation Fireshield		Double sided foil	Afripack Coatings	2024-10-02	IT 24-10-00049	A2-s1, d0		*	*		N/A
*Sisalation FR430		Double sided foil	Afripack Coatings	2024-07-02	IT 24-07-00020	B-s1, d1			*	*	N/A
*Sisalation 405		Double sided foil	Afripack Coatings	2024-07-16	IT 24-07-00034	C-s1, d1			*	*	N/A
*Sisalation FR405		Double sided foil	Afripack Coatings	2024-07-05	IT 24-07-00032	C-s1, d1			*	*	N/A

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Tested and classified in accordance with SANS 53501-1
Reaction to Fire Classification of Thermal Insulation Products

TABLE 6: ACOUSTIC INSULATION UNFACED/FACED – FLEXIBLE/RIGID

PRODUCT/ BRAND NAME (Alphabetically)	THICKNESS MM	DESCRIPTION	INSULATION MANUFACTURER / SOLE DISTRIBUTOR	REPORT DATE	REPORT NUMBER	CLASSIFICATION SANS 53501-1	Test Methods				
							SANS 11820 Non-combustibility	SANS 1743 Calorific Value	SANS 53823 Single Burning Item	SANS 11925-2 Ignitability	SANS 10177-11 Large Scale
*Acoustic Liner (Flexible)	50	Glass Wool Faced	Brits Nonwoven (Pty) Ltd	2024-04-15	IT 24-04-00008	A1	*	*	*		N/A
*Granric Thermosonic NC	110	Glass Wool Faced	Brits Nonwoven (Pty) Ltd	2024-04-15	IT 24-04-00009	A1	*	*	*		N/A
*Knauf Acoustic Slab	25-100	Mineral Wool	Knauf Insulation Ltd	2023-08-10	0402-CPR-C000007	A1	*	*			N/A
*Soundlite Ceiling Tile	40	Glass Wool	Saint-Gobain Isover	2024-09-25	IT 24-09-00046	A1	*	*			N/A

TABLE 7: DUCT INSULATION FACED – FLEXIBLE

*FRK Duct Insulation	50	Glass Wool Foil Faced	Brits Nonwoven (Pty) Ltd	2024-08-30	IT 24-05-00017	A2-s1, d0	*		*		N/A
*Isover Ductwrap	50	Glass Wool Foil Faced	Saint-Gobain Isover	2024-09-26	IT 24-09-00048	A2-s1, d0	*		*		N/A
*Sonic Liner Black Faced	25	Glass Wool Black Faced	Saint-Gobain Isover	2024-09-25	IT 24-09-00045	A1	*	*			N/A

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Insulation products are classified according to harmonized classification and test methods in Euroclass A1, A2, B, C, D, E and F. Products classified in a given class are deemed to satisfy all the requirements of any lower (better) class. Products listed in A1 and A2 classes are non-combustible (cement, concrete, minerals, glass wool, fibreglass, rockwool, ceramic, etc.), materials certified from B to F are combustible in ascending order.

Class	Test	Classification Criteria	Additional Classification	Contribution to fire
A1	SANS 11820	$\Delta T \leq 30^\circ \text{C}$; and $\Delta m \leq 50\%$; and $t_f = 0$ (i.e. no sustained flaming)	-	Non-Combustible
	SANS 1743	$PCS \leq 2.0 \text{ MJ/kg}^a$ and $PCS \leq 2.0 \text{ MJ/kg}^{b,c}$ and $PCS \leq 1.4 \text{ MJ/m}^2^d$ and $PCS \leq 2.0 \text{ MJ/kg}^e$		No contribution to fire
A2	SANS 1182 or	$\Delta T \leq 50^\circ \text{C}$; and $\Delta m \leq 50\%$; and $t_f \leq 20 \text{ s}$	Smoke production ^f and Flaming droplets/particles ^g	Limited Combustible
	SANS 1743 and	$PCS \leq 3.0 \text{ MJ/kg}^a$ and $PCS \leq 4.0 \text{ MJ/m}^2^b$ and $PCS \leq 4.0 \text{ MJ/m}^2^d$ and $PCS \leq 3.0 \text{ MJ/kg}^e$		No contribution to fire
	SANS 53823 SBI	$FIGRA \leq 120 \text{ W/s}$; and $LFS < \text{edge of specimen}$; and $THR_{600s} \leq 7.5 \text{ MJ}$		No Flashover
B	SANS 53823 SBI	$FIGRA \leq 120 \text{ W/s}$; and $LFS < \text{edge of specimen}$; and $THR_{600s} \leq 7.5 \text{ MJ}$	Smoke production ^f and Flaming droplets/particles	Combustible materials
	SANS 11952-2	$F_s \leq 150 \text{ mm}$ within 60 s		No Flashover Very limited contribution to fire
C	SANS 53823 SBI	$FIGRA \leq 250 \text{ W/s}$; and $LFS < \text{edge of specimen}$; and $THR_{600s} \leq 15 \text{ MJ}$	Smoke production ^f and Flaming droplets/particles ^g	Flashover after 10 minutes
	SANS 11952-2	$F_s \leq 150 \text{ mm}$ within 60 s		Limited contribution to fire
D	SANS 53823 SBI	$FIGRA \leq 750 \text{ W/s}$	Smoke production ^f and Flaming droplets/particles ^g	Flashover before 10 min
	SANS 11952-2	$F_s \leq 150 \text{ mm}$ within 60 s		Medium contribution to fire
E	SANS 11952-2	$F_s \leq 150 \text{ mm}$ within 20 s (Additional large-scale test required for occupancies A5, B3, D3 & J3)	Flaming droplets/particles ^g	Flashover before 2 minutes
F		No performance determined		No Performance Determined

ADDITIONAL CLASSIFICATIONS EXPLAINED

All the materials classified A2, B, C, D & E to obtain an additional classification regarding the emission of smoke and the production of flaming droplets and/or particles.

Additional Class		Level definition		
"s" Smoke emission level: - values range from 1 (absent/weak) to 3 (high)	Smoke emission - during combustion	s	1	No smoke. Quantity/speed of emission absent or weak
			2	Limited smoke production and smoke increase. Quantity/speed of emission of average intensity
			3	Quantity/speed of emission of high intensity
"d" flaming Droplets and/or particles - values range from 0 (absent) to 2 (high)	Production of flaming droplets /particles - during combustion	d	0	No dripping
			1	Slow dripping
			2	High dripping

See SANS 53501-1 or SANS 10400-T:2024 Ed 5 Fire protection for full explanation of classification

SANS 10400-A - Regulation A20 Classification and Designation of Occupancies relevant to SANS 10400-T Fire Protection	Reaction to fire classification SANS 53501-1 The classification indicated or better				SANS 10400-A - Regulation A20 Classification and Designation of Occupancies relevant to SANS 10400-T Fire Protection	Reaction to fire classification SANS 53501-1 The classification indicated or better			
	Class of Occupancy	Single storey	Double storey	3 storeys or more		Class of Occupancy	Single storey	Double storey	3 storeys or more
Entertainment and public assembly	A1	A2-s1, d0	A2-s1, d0	A2-s1, d0	Other institutional (residential)	E3	A2-s1, d0	A2-s1, d0	A2-s1, d0
Theatrical and indoor sport	A2	D-s3, d2	C- s3, d2	A2-s1, d0	Health care	E4	A2-s1, d0	A2-s1, d0	A2-s1, d0
Places of instruction	A3	D-s3, d2	C- s3, d2	B-s3, d2	Large shop	F1	D-s3, d2	C- s3, d1	A2-s1, d0
Worship	A4	D-s3, d2	C- s3, d2	A2-s1, d0	Small shop	F2	D-s3, d2	C- s3, d2	A2-s1, d0
Outdoor sport	A5	E-s3, d2	D-s3, d2	A2-s1, d0	Wholesalers' store	F3	D-s3, d2	C- s3, d2	A2-s1, d0
High risk commercial service	B1	A2-s1, d0	A2-s1, d0	A2-s1, d0	Offices	G1	E-s3, d2	D-s3, d2	A2-s1, d0
Moderate risk commercial service	B2	D-s3, d2	C- s3, d2	A2-s1, d0	Hotel	H1	A2-s1, d0	A2-s1, d0	A2-s1, d0
Low risk commercial service	B3	E-s3, d2	D-s3, d2	A2-s1, d0	Dormitory	H2	A2-s1, d0	A2-s1, d0	A2-s1, d0
Exhibition hall	C1	D-s3, d2	C- s3, d2	A2-s1, d0	Domestic residence	H3	E-s3, d2	D-s3, d2	A2-s1, d0
Museum	C2	D-s3, d2	C- s3, d2	A2-s1, d0	Dwelling house	H4	E-s3, d2	D-s3, d2	A2-s1, d0
High -risk industrial	D1	A2-s1, d0	A2-s1, d0	A2-s1, d0	Hospitality	H5	D-s3, d2	C- s3, d2	A2-s1, d0
Moderate-risk industrial	D2	D-s3, d2	C- s3, d1	A2-s1, d0	High-risk storage	J1	A2-s1, d0	A2-s1, d0	A2-s1, d0
Low-risk industrial	D3	E-s3, d2	D-s3, d2	A2-s1, d0	Moderate-risk storage	J2	C- s3, d2	B-s3, d2	A2-s1, d0
Plant room	D4	A2-s1, d0	A2-s1, d0	A2-s1, d0	Low-risk storage	J3	E-s3, d2	D-s3, d2	A2-s1, d0
Place of detention	E1	A2-s1, d0	A2-s1, d0	A2-s1, d0	Parking garage	J4	D-s3, d2	C- s3, d2	A2-s1, d0
Hospital	E2	A2-s1, d0	A2-s1, d0	A2-s1, d0					

Notes:

A1 to F refer to the Fire Class determined in accordance with SANS 53501-1. Building Occupancy Classes A1, B1, D1, D4, E1, E2, E3, E4, H1, H2 and J1 are limited to Classification A2-s1,d0 or better.

All the materials classified A2, B, C, D, E obtain an additional classification regarding the emission of smoke and the production of flaming droplets and/or particles.

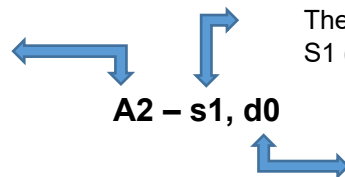
“s” Smoke emission level: values range from 1 (absent/weak) to 3 (high)

“d” Flaming droplets and/or particles: values range from 0 (absent) to 2 (high)

Example of fire classes & criteria – in addition smoke & droplets

The main part of the classification is its letter – A1, A2, B, C, D, E and F.

A1 is the highest level of performance, with F the lowest performance level.



There is a smoke classification of S1 (absent/ weak), S2 or 3 (high)

There is a classification of flaming droplets of d0, d1 or d2. d0 is the highest level of performance (absent) and d2 is the lowest performance level (high).