Fletcher Insulation
Building Better, Together

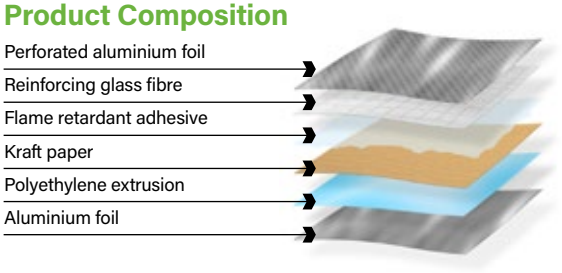
Technical data sheet

Sisalation® Heavy Duty Perforated 450P Facing Foil

Description

Sisalation® Heavy Duty Perforated 450P Facing Foil is a double sided reflective foil laminate with approx. 2.5mm diameter perforations. The facing foil product comprises of an outer layer of aluminum foil bonded to a high density kraft paper. This is then bonded to an additional layer of foil using a heavy coating of flame-retardant adhesive. The laminate is reinforced with strands of glass fibre yarn to deliver exceptional strength. The final product is perforated to provide 11% open space.

Product Composition



Applications

Sisalation® Heavy Duty Perforated 450P Facing Foil is recommended for use as an acoustic insulation facing to maximise the acoustic absorption properties of the glasswool insulation. Recommended for lining internal ductwork for high volume air conditioning (HVAC) systems, common to large commercial buildings, to reduce sound transmission of moving air and airborne noise from room to room. It is also recommended for providing acoustic treatment of walls and ceilings when used in combination with a glasswool blanket and installed behind a ceiling or wall lining.

Features and benefits

Superior NRC acoustic sound absorption coefficient performance	→	Minimises impact of excessive noise created by overall ducting systems, creating more pleasant living, working and leisure environments.
Smoke Developed Index of 3	→	Meets flammability requirements in accordance with AS/NZS 1530.3 and AS 4254.2 thus offering compliance with NCC requirements.
Heavy Duty tensile strength	→	Provides superior strength as an effective facing to bulk glasswool insulation in ducting, plant room, factories and sports stadium applications.

Product data

Roll width mm	Roll length m	m2 per roll	Roll weight kg
1200	300	360	56.74
1350	60	81	12.53
1500	300	450	70.89
1500	600	900	138.97

Physical properties

Property		Test method/standard	Result/classification	Unit
Duty classification		AS4200.1	Heavy duty	
Resistance to dry delamination		AS/NZS 4201.1	Pass	
Resistance to wet delamination		AS/NZS 4201.2	Pass	
Shrinkage		AS/NZS 4201.3	≤0.5	%
Emittance of reflective face (prior to perforation)		AS/NZS 4201.5	IR Reflective (0.03)	
Edge tear resistance (prior to perforation)	Lateral direction	TAPPI T470	≥ 80	N
	Machine direction		≥ 80	
Tensile strength (prior to perforation)	Machine direction	AS1301.448	≥ 7.5	kN/m
	Lateral direction		≥ 12.5	

Fire hazard properties

Sisalation® Heavy Duty Perforated 450P Facing Foil exhibits the following characteristics when laminated to FI32 Semi Rigid bulk insulation and tested in accordance with the following standards:

Property	Test method/standard	Result
Early Fire Hazard Indices	Ignitability, Flame Propagation, Heat Release and Smoke Release (AS/NZS 1530.3)	
Ignitability Index		0
Spread of Flame Index		0
Heat Evolved Index		0
Smoke Developed Index		3
Burn test – air duct	In accordance with AS 4254	Complies

Acoustic performance

Sound absorption

The performance of sound absorption for insulation is described by the Noise Reduction Coefficient (NRC). In sound absorption applications, the NRC is used as an acoustic performance measure. The higher the NRC, the greater the sound absorption at the representative frequencies. The NRC is the calculated average result of four frequencies: 250 Hz, 500 Hz, 1,000 Hz and 2,000 Hz.

Sisalation® Heavy Duty Perforated 450P Facing Foil Insulation achieves the following sound absorption coefficients when tested in accordance with AS ISO 350:

FI32 Semi Rigid faced with:	Nominal Thickness mm	Sound absorption coefficients at frequencies (Hz) of:										
		100	125	250	500	1000	2000	3150	4000	5000	NRC	αw
Sisalation® Heavy Duty Perforated 450P Facing Foil	25	0.05	0.06	0.22	0.63	0.87	1.00	0.92	0.88	0.83	0.70	0.55 (MH)
	38	0.08	0.16	0.57	0.89	1.08	1.02	0.98	0.99	0.94	0.90	0.85
	50	0.07	0.19	0.68	1.07	1.05	1.01	0.91	0.96	0.86	0.95	1.00
	75	0.22	0.52	1.16	1.07	0.99	1.01	0.99	0.97	0.90	1.05	1.00
	100	0.45	0.82	1.19	1.14	1.06	1.06	1.01	1.01	0.96	1.10	1.00

Health and safety

There are no known health or safety risks associated with this product for applications described in this datasheet. Sisalation® Heavy Duty Perforated 450P Facing Foil contains aluminium foil and can conduct electricity. To avoid electrocution, care should be taken to ensure products do not come into contact with electrical wiring during installation or use. For additional information or to request a Safety User Information Sheet (SUIS) please visit www.insulation.com.au or contact your Fletcher Insulation Representative.

Technical specification

When specifying, state the following:
Facing material should be Sisalation® Heavy Duty Perforated 450P Facing Foil bonded directly to FI32 Semi Rigid Insulation.