

Core Material Comparisons

CORE MATERIAL	Expanded Polystyrene with Fire Retardant	Polyisocyanurate	Thermosetting Phenolic Composite	Mineral Wool
	EPS-FR	PIR	TPC	MW
ACOUSTIC CHARACTERISTICS				
Frequency: 50mm Panel -STC	24	24	24	25
Frequency: 125mm Panel -STC	23	25	25	26
CORE CHARACTERISTICS				
Core Density	13.5kg/m ³	38/42kg/m ³	32/34kg/m ³	100kg/m ³
THERMAL CONDUCTIVITY				
W/mK @ 22.5C	0.037	0.0232	0.0295	0.0363
ENERGY PERFORMANCE				
R Value: 50mm Panel	1.40	2.16	1.70	-
R Value: 75mm Panel	2.00	3.23	2.50	2.08
R Value: 100mm Panel	2.70	4.31	3.30	2.78
R Value: 150mm Panel	4.10	6.47	5.00	4.17
FIRE PERFORMANCE INFORMATION				
C1.1 Non Combustible C1.9e	Combustible	Combustible	Combustible	Non-Combustible
Early fire hazard properties (A.S. 1530.3 1999)	Ignitability - 0	Ignitability - 0	Ignitability - 0	Ignitability - 0
	Spread of Flame - 0	Spread of Flame - 0	Spread of Flame - 0	Spread of Flame - 0
	Heat Evolved - 0	Heat Evolved - 0	Heat Evolved - 0	Heat Evolved - 0
	Smoke Developed - 2	Smoke Developed - 3	Smoke Developed - 1	Smoke Developed - 2
AS/ISO 9705 classification	Group 1	Group 1	Group 1	Group 1
Factory Mutual (FM Approved)	-	FM 4880, 4881 & 4471	-	-
SMORGA (m2/S2 x 1000)	3.8	21.4	2.2	N/A
Non Load Bearing Wall (AS 1530.4:2014)	N/A	N/A	N/A	-/60/120
PHYSICAL INFORMATION				
Panel Weights: 0.6mm skins at 100mm core	11.6kgs/m ²	14.2kgs/m ²	13.2kgs/m ²	20.25kgs/m ²
Recyclability	Yes	Yes	Yes	Limited
Safety handling requirements	Safety Data Sheet	Safety Data Sheet	Safety Data Sheet	Safety Data Sheet

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