

SOUNDMASTER FOR WALLS & CEILING APPLICATIONS. INTERNAL & EXTERNAL COMPOSITE PANELING GIVING UP TO 2 HOUR FIRE RATING

**TABLE 1
COMPOSITE PANEL TECHNICAL DATA, LOAD SPANS**

Panel thickness (mm)	Wall spans (m)								Ceiling / roof (m)								
	Maximum allowable loads KN/m ²								Maximum allowable loads KN/m ²								
	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	
40mm	MF 10 (MINERAL FIBRE)	1	0.5	0.3	0.2					4.95	0.3						3.05
	MF 12.5	1.1	0.6	0.3	0.2					5.07	0.4						3.35
	PIR (POLYISOCYNAUSTRATE)	0.8	0.5	0.3	0.2					4.80	0.1						2.71
50mm	MF 10 (MINERAL FIBRE)	1.8	1.0	0.6	0.4	0.3				6.55	1.1	0.4	0.1				4.50
	MF 12.5	2.2	1.1	0.7	0.4	0.3				6.70	1.5	0.6	0.2				4.77
	PIR (POLYISOCYNAUSTRATE)	1.5	0.9	0.5	0.3	0.2				6.37	0.8	0.3	0.1				4.26
75mm	MF 10 (MINERAL FIBRE)	2.8	1.6	1	0.6	0.4	0.3			7.98	2.1	1.1	0.5	0.2			5.78
	MF 12.5	3.4	1.8	1.1	0.7	0.5	0.3			8.14	2.7	1.3	0.6	0.2			5.98
	PIR (POLYISOCYNAUSTRATE)	2.3	1.3	0.8	0.6	0.4	0.3			7.79	1.5	0.8	0.4	0.2			5.60
100mm	MF 10 (MINERAL FIBRE)	3.7	2.1	1.3	0.9	0.6	0.4	0.3	0.2	9.31	3	1.7	0.9	0.5	0.2		6.86
	MF 12.5	4.7	2.6	1.6	1	0.7	0.5	0.3	0.3	9.47	4	2.1	1.1	0.6	0.3		7.07
	PIR (POLYISOCYNAUSTRATE)	2.9	1.6	1	0.7	0.5	0.4	0.3	0.2	9.09	2.3	1.3	0.8	0.4	0.2		6.83
150mm	MF 10 (MINERAL FIBRE)	4.5	2.5	1.6	1.1	0.8	0.6	0.5	0.3	10.54	4.1	2.3	1.4	0.8	0.5	0.2	7.90
	MF 12.5	4.5	3.3	2.1	1.4	0.9	0.7	0.5	0.4	10.73	4.1	3	1.7	0.9	0.5	0.3	8.05
	PIR (POLYISOCYNAUSTRATE)	3.4	1.9	1.2	0.9	0.6	0.5	0.4	0.3	10.12	3.1	1.8	1	0.6	0.4	0.2	7.75
175mm	PIR (POLYISOCYNAUSTRATE)	4	2.2	1.4	1	0.7	0.6	0.4	0.4	10.93	3.9	2.2	1.3	0.8	0.5	0.3	8.47
	PIR (POLYISOCYNAUSTRATE)	4	2.2	1.4	1	0.7	0.6	0.4	0.4	11.69	4.7	2.6	1.5	1	0.6	0.4	0.3

■ Maximum recommended panel height given internal air pressure load of 0.3 KN/msq

■ Maximum ceiling panel span in accordance with BS 6399 for walk on ceilings.

**TABLE 2
THERMAL PROPERTIES**

Insulation Materials	Thermal Conductivity (W/m degrees C)	U Value (W/m ² degrees C)									Recommended Thickness for U Value (0.45W/m ² degrees C)
		50	75	100	125	150	175	200	250	300	
MF (MINERAL FIBRE)	0.042	0.65	0.51	0.39	0.32	0.27	0.23	0.20	0.16	0.14	100
LPC PIR (POLYISOCYNAUSTRATE)	0.022	0.41	0.28	0.21	0.17	0.14	0.12	0.11	0.09	0.07	50

**TABLE 3
PANEL WEIGHT kg/m²**

	(Panel Thickness (mm))							
	50	75	100	125	150	175	180	200
MF 10 (MINERAL FIBRE)	14.6	17.1	19.6	22.1	24.6	-	27.6	-
MF 12	15.9	19.0	22.1	25.2	28.4	-	-	-
LPC PIR (POLYISOCYNAUSTRATE)	11.6	12.6	13.6	14.6	15.6	16.6	-	19.6

SOUND PROPERTIES

100 mm Isoclad panel with 140kg/m² density mineral fibre core. Rw 35dB
 50 mm Isoclad panel with 140kg/m² density mineral fibre core. Rw 30dB
 40 mm Isoclad panel with 30kg/m² density polystyrene core. Rw 27dB

NOTES

POLYISOCYNAUSTRATE (PIR) AND MINERAL FIBRE PROVIDE GOOD INSULATION AND FIRE BARRIER. THE EXTERNAL/INTERNAL FACING MATERIAL IS HOT DIPPED GALVANISED STEEL 0.5 OR 0.7MM THICK. THE STANDARD PANEL WIDTH IS 1190MM AND THE THICKNESS RANGES FROM 40mm UP TO 200mm. HYGIENIK RECOMMEND THE USE OF INTUMESCENT MASTIC WHEN INSTALLING FIRE RATED PANELS. RIVETS AND TEK SCREWS ARE COMMONLY USED TO FIX ACCESSORY FLASHINGS AND BASE CHANNEL ITEMS. (SEE DRAWING HYG0001 FOR TECHNICAL DETAILS)

TABLES 1, 2 AND 3 ABOVE SHOWS THE TECHNICAL DATA, FOR COMPOSITE PANELS FOR LOAD SPANS, THERMAL PROPERTIES, PANEL WEIGHT AND SOUND PROPERTIES.

CLEANING STRATEGY FOR O&M MANUALS SEE CSO&M DATA SHEET.

NBS Ref: H43 120