

Please see below the spec for the soundproofing and fire separation applied to the underside of the first floor across the whole of the GF unit.

*Provide and install 2 x 15mm layers Gyproc Soundbloc boarding to ceilings fixed directly to joists with suitable drywall screws. Board joints to be staggered and taped. Install softwood perimeter and intermediate noggings as required to manufacturer's specification. Include all downstand beams and detailing to achieve 60mins fire resistance. All joints/penetrations to be treated with fire rated mastic sealant: See bottom line from the excerpt below from the boarding technical spec.*

Detail	Partition thickness mm	Board type <sup>1</sup>	Lining thickness mm	Max. partition height <sup>2</sup> mm				Isover Spacesaver Plus	Sound insulation $R_w$ ( $R_w + C_{tr}$ ) dB	Duty rating	Approx. weight kg/m <sup>2</sup>	System reference
				Fixing Channels braces at 3600mm centres		GAB3 Acoustic braces at 3300mm centres						
				L/240 <sup>3</sup> mm	L/125 <sup>3</sup> mm	L/240 <sup>3</sup> mm	L/125 <sup>3</sup> mm					
<b>60 minutes fire resistance (BS)</b>												
1	300	Gyproc SoundBloc	2 x 12.5	8000	9500	8000	10000	100	67 (56)	Severe	47	A326001
<b>90 minutes fire resistance (BS)</b>												
1	300	Gyproc WallBoard	2 x 15	8000	9500	8000	10000	100	67 (58)	Severe	46	A326011
1	300	Gyproc SoundBloc	2 x 15	8000	9500	8000	10000	100	69 (60)	Severe	55	A326002

Along with this there are additional layers of 12mm and 9mm boards applied over the top of the existing floorboards and the floor finish. From my rule of thumb calculations this would give a sound reduction in excess of 60dbA. Obviously there would be further sound reduction of the solid walls through to number 9.