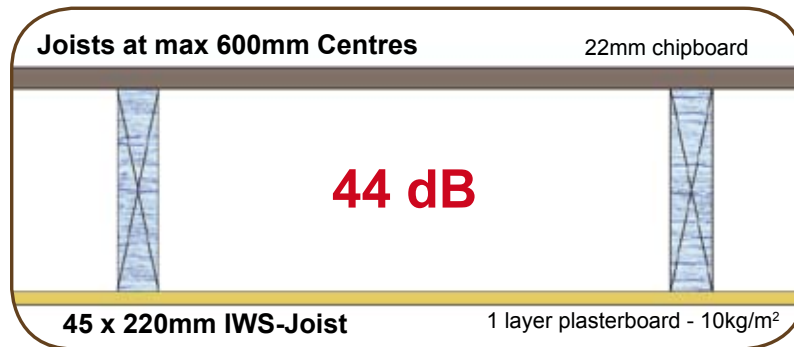


## IWS-Intermediate Floor (Lowest installed cost)



### To meet Section 5.2.1 Scottish Building Regulations: Noise

Airborne acoustic performance target for intermediate floors within dwellings is **43 dB R<sub>w</sub>**.

### To meet Silver (Aspect 7) in Scottish Building Regulations Section 7: Sustainability

Noise reduction between rooms: Design performance level for a minimum airborne sound insulation should be **44 dB R<sub>w</sub>**.



### Benefits of IWS-Intermediate Floor

- Meets Scottish acoustic performance targets with minimum specification:
  - **No insulation** **Typical saving** - £4m<sup>2</sup> materials PLUS £4m<sup>2</sup> installation costs = **£8m<sup>2</sup>**
  - **No resilient bars** **Typical saving** - £4m<sup>2</sup> materials PLUS £4m<sup>2</sup> installation costs = **£8m<sup>2</sup>**
  - **Shallow floors** - overall depth 257mm
- Cost savings in both materials and installation
- Joists can be treated with IWS-FR (**at no extra cost**) to provide excellent fire mitigation properties (fully compliant with WPA Benchmark FR Build quality scheme)
- Only engineered joist on the market today pre-treated to significantly reduce water ingress. This allows it to retain its strength and straightness characteristics both during and after the build process.

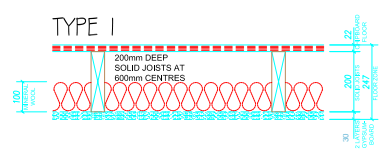
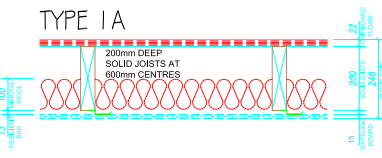
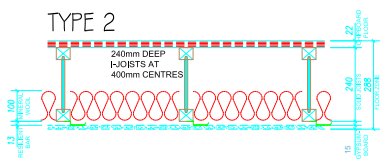
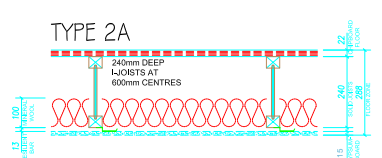
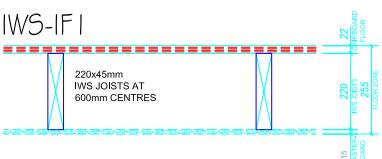
# Intermediate Floor Options

## Section 5: Noise – The Building (Scotland) Regulations

The airborne acoustic performance target for intermediate floors within dwellings, introduced in Oct 2010, as detailed in section 5.2.1 of the Technical Handbook for Domestic Buildings is 43 dB  $R_w$ .

Practical guidance on meeting this new acoustic target is provided in Example Construction and Generic Internal Constructions, Section 4.c, published August 2011 by the Buildings Standards Division.

All the generic details include insulation as part of the specification with some including resilient bar systems in addition.

Floor Option	Joist Depth/ C/cs	Decking	Ceiling	Insulation	Resilient Bars
 <p>TYPE 1 200mm DEEP SOLID JOISTS AT 600mm CENTRES</p>	Solid Joists 200mm 600c/c	22mm	2 layers 10kg/m <sup>2</sup>	100mm	No resilient bar required
 <p>TYPE 1A 200mm DEEP SOLID JOISTS AT 600mm CENTRES</p>	Solid Joists 200mm 600c/c	22mm	1 layer 10kg/m <sup>2</sup>	100mm	13mm depth
 <p>TYPE 2 240mm DEEP I-JOISTS AT 400mm CENTRES</p>	I-Joists 240mm 400c/c	22mm	1 layer 10kg/m <sup>2</sup>	100mm	13mm depth
 <p>TYPE 2A 240mm DEEP I-JOISTS AT 600mm CENTRES</p>	I-Joists 240mm 600c/c	22mm	1 layer 10kg/m <sup>2</sup>	100mm	13mm depth
 <p>IWS-IF1 220x45mm IWS JOISTS AT 600mm CENTRES</p>	IWS-Joist 220mm 600c/c	22mm	1 layer 10kg/m <sup>2</sup>	No insulation required	No resilient bar required

IWS can achieve sound reduction of 43dB with 220mm IWS-Joists with 12.5mm ceiling at 600mm joist centres\*

\*Other floor compositions available please contact IWS Technical Department on 01592 630774.

SRL Technical Report (UKAS no. 0444) reference number C/21005/R01 - 8 December 2009