



Table 1 - Environmental insulation thicknesses for domestic central heating installations and hot water systems

England, Scotland & Wales - Refer to *BS 5422: 2009* Table 19 or to TIMSA Guide Table 6.

Domestic heating compliance guide with Approved Documents L1a: New dwellings and L1b: Existing dwelling

Pipe diameter (OD)	Maximum permissible heat loss* (W/m ²)
mm	(Thickness of Isover Foil Faced Pipe Section)
10 mm	7.23 (n/a)
12 mm	7.35 (n/a)
15 mm	7.89 (20mm)
22 mm	9.12 (20mm)
28 mm	10.07 (20mm)
35 mm	11.08 (20mm)
42 mm	12.19 (20mm)
54 mm	14.12 (20mm)

When assessing the thickness of insulation needed, standardised conditions should be used in all compliance calculations based in this instance on a horizontal pipe at 60°C in still air at 15°C. For further assistance in converting these heat loss limits to levels (thickness) of insulation, refer to the TIMSA HVAC Guidance for achieving compliance with Part L of the Building Regulations.

The thicknesses shown in this section are commercially available thicknesses that will meet or exceed the thermal performance required.

NOTE: The requirements for domestic heating and hot water are combined into one table for ease of material handling on site. In the absence of specific instructions from the specifiers, the insulation thickness shall not be less than that specified in Table 14 (Refer to Table 14, *BS 5422: 2001*).

NOTE: Thicknesses given are calculated specifically against the criteria noted in the table. Adopting these thicknesses may not necessarily satisfy other design requirements, such as condensation control.