Table 3 - Environmental insulation thicknesses for chilled water supplies to control heat gain

England, Scotland & Wales

Refer to TIMSA Guide Section 5.2, page 17 and *BS 5422: 2009* Table 10.

Pipe outside diameter (mm)	Maximum permissible heat gain (W/m^2) (Thickness of Isover Foil Faced Pipe Section)		
	Temperature of contents (°C)		
	> 10[5]	4.9 > 10.0[6]	0 > 4.9[7]
17.2	2.48 (20mm)	2.97 (20mm)	3.47 (20mm)
21.3	2.72 (20mm)	3.27 (20mm)	3.81 (25mm)
26.9	3.05 (20mm)	3.58 (20mm)	4.18 (25mm)
33,7	3.41 (20mm)	4.01 (25mm)	4.60 (25mm)
42.4	3.86 (20mm)	4.53 (25mm)	5.11 (30mm)
48.3	4.11 (20mm)	4.82 (25mm)	5.45 (30mm)
60.3	4.78 (20mm)	5.48 (25mm)	6.17 (30mm)
76.1	5.51 (20mm)	6.30 (25mm)	6.70 (40mm)
88.9	6.17 (20mm)	6.90 (30mm)	7.77 (40mm)
114.3	7.28 (20mm)	8.31 (30mm)	9.15 (40mm)
139.7	8.52 (20mm)	9.49 (30mm)	10.45 (40mm)
168.3	9.89 (25mm)	10.97 (30mm)	11.86 (40mm)
219.1	12.27 (25mm)	13.57 (30mm)	14.61 (40mm)
273.0 & above	14.74 (25mm)	16.28 (30mm)	17.48 (40mm)

NOTE: The insulation thicknesses shown are calculated specifically against the criteria noted in this table.

The insulation thicknesses shown may not be sufficient to prevent condensation on low emissivity surfaces applied to insulated pipes located in 25°C, 80% relative humidity ambient air as described in *BS 5422: 2009*. Additional guidance on the control of condensation is provided in Table 4 (page 20) of this guide.

To ensure compliance with maximum permissible heat gain criteria, proposed insulation thicknesses should be calculated according to *BS EN ISO 12241* using standardised assumptions:

5 Horizontal pipe at 10°C in still air at 25°C
6 Horizontal pipe at 5°C in still air at 25°C
7 Horizontal pipe at 0°C in still air at 25°C