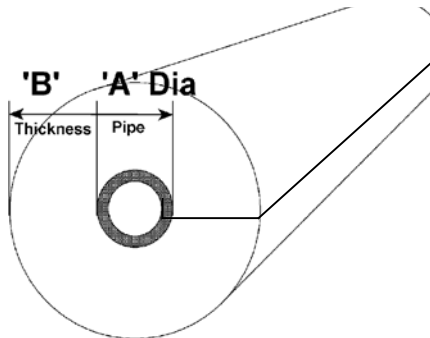


## Loft Insulation - Technical Information

Minimum thickness of thermal insulation material to delay freezing for frost protection.



Pre-Formed Pipe Insulation

Nominal Outside Diameter of Pipe (mm)	Thermal Conductivity of Insulating Material Not Exceeding: (Thermal Conductivity when Tested in Accordance with BS 874) W/mK			
	0.035	0.040	0.045	0.055
Dia'A'	Thickness of Insulation (mm) Dim'n 'B'			
15	25	32	45	70
22	19	22	27	32
28	19	22	27	32
35	9	13	19	25
42	9	13	19	25
54	9	13	19	25
76.1 and flat surfaces	9	13	19	25

Thickness of insulation as given above under the respective thermal conductivity values is considered reasonable to provide a minimum of 8 hours protection in normally occupied buildings. Absence in excess of 24 hours is not considered normal occupation.

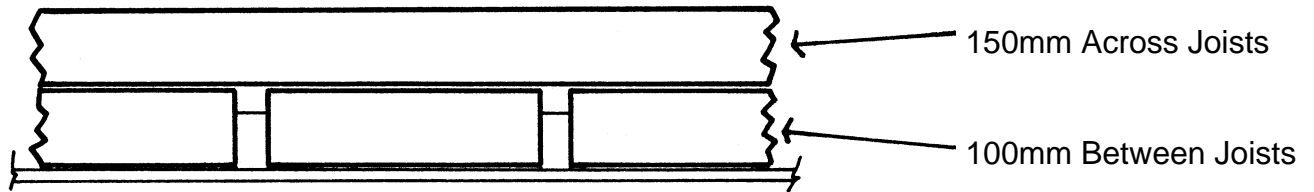
TYPICAL VALUES OF THERMAL RESISTANCE FOR INSULATION MATERIAL

MATERIAL	DENSITY (kg/m <sup>3</sup> )	THERMAL CONDUCTIVITY [k] (W/mK)	T = THICKNESS (mm)	'R' VALUE (m <sup>2</sup> K/W)
GLASS FIBRE QUILT (BS 5803 Pt 1)	12	0.044	100	2.27
			170	3.86
			200	4.55
			270	6.14
BLOWN GLASS FIBRE (BS 5803 Pt 2)	15	0.044	100	2.27
			170	3.86
			200	4.55
			270	6.14
BLOWN CELLULOSE FIBRE (BS 5803 Pt 3)	25	0.035	88	2.50
			131	3.75
			175	5.00
			219	6.25
EXPANDED POLYSTYRENE (EPS)	25	0.035	50	1.43
			100	2.86

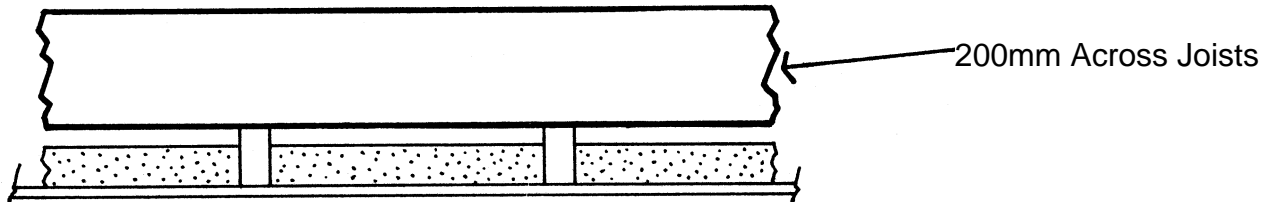
## LOFT INSULATION LAYING PATTERN GUIDANCE

The following insulation laying patterns are based on the use of standard thickness' of quilt material and assumes a normal joist depth of 75mm. Drawings are NOT to scale.

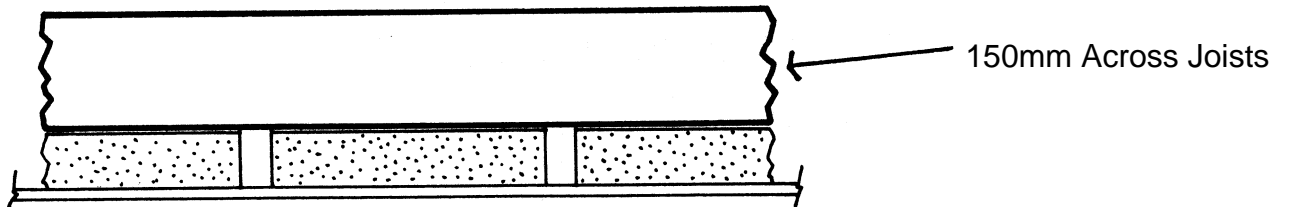
### NO EXISTING INSULATION



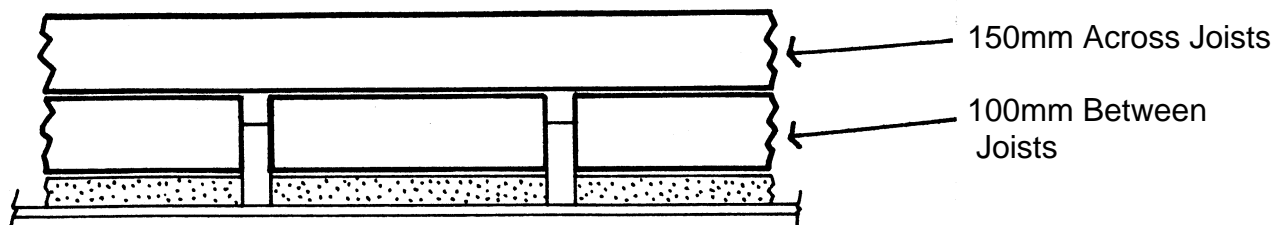
### 50 TO 80mm EXISTING INSULATION



### 100mm EXISTING INSULATION



### UP TO 25mm EXISTING INSULATION





## LOFT SPACE WARNING LABEL

The following warning label should be located on two adjacent sides of the loft access in clear sight of anyone wishing to enter the loft space.

**DANGER**

CEILING JOISTS MAY BE COVERED BY INSULATION MATERIAL.

THE FLOOR BETWEEN THE JOISTS IS FRAGILE. IT WILL NOT CARRY YOUR WEIGHT.

YOU SHOULD NOT ENTER UNLESS A CRAWL BOARD IS PLACED ACROSS THE JOISTS.