

Table 3 Minimum provisions for insulation of pipes serving gas-fired central heating systems

Minimum provision	Supplementary information	
<p>In new systems pipes should, in the following cases, be insulated with insulation complying with the requirements of the Domestic Heating Compliance guide (in line with the maximum permissible heat loss indicated in the Supplementary Information column), and labelled accordingly:</p> <ul style="list-style-type: none"> <li>• Primary circulation pipes for heating and hot water circuits should be insulated wherever they pass outside the heated living space or through voids which communicate with and are ventilated from unheated spaces.</li> <li>• Primary circulation pipes for hot water service should be insulated throughout their length, subject only to practical constraints imposed by the need to penetrate joists and other structural elements</li> <li>• All pipes connected to hot water storage vessels, including the vent pipe, should be insulated for at least one metre from their points of connection to the cylinder (or they should be insulated up to the point where they become concealed)</li> <li>• If secondary circulation is used, all pipes kept hot by that circulation should be insulated.</li> </ul> <p>For replacement systems, whenever a boiler or hot water storage vessel is replaced in an existing system, any pipes (in the situations above) that are exposed as part of the work or are otherwise accessible should be insulated as recommended in this guide in line with the maximum permissible heat loss indicated in the Supplementary Information column), and labelled accordingly – or to some lesser standard where practical constraints dictate.</p>	<p>Insulation for pipework in unheated areas Extra provision may need to be made to protect central heating and hot water pipework in unheated areas against freezing. Further guidance is available in:</p> <ul style="list-style-type: none"> <li>• BS 5422:2001 Method for specifying thermal insulating materials for pipes, tanks, vessels, ductwork and equipment operating within the temperature range of - 40°C to + 700°C</li> <li>• BRE Report No 262 Thermal insulation: avoiding risks, 2002 edition.</li> </ul>	
	<p>Where insulation is labelled as complying with the Domestic Heating Compliance Guide it must not exceed the following heat loss levels:</p>	
	<p>Pipe diameter (OD) mm</p>	<p>Maximum permissible heat loss* (W/m)</p>
	8mm	7.06
	10mm	7.23
	12mm	7.35
	15mm	7.89
	22mm	9.12
	28mm	10.07
	35mm	11.08
	42mm	12.19
	54mm	14.12
<p>This data has been added and does not form part of the Domestic Heating Compliance Guide but is useful. It provides relevant product numbers for Armaflex Part L compliant products:</p> <p>8mm            C0-13X010  10mm          C0-13X010  12mm          C0-19X012  15mm          C0-19X015  22mm          C0-25X022  28mm          C0-25X028  35mm          C0-32X035  42mm          C0-32X042  54mm          C0-32X054</p>	<p>*In assessing the thickness of insulation required to meet the provision, 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</p> <p>Further assistance in converting these heat loss limits to levels (thickness) of insulation for specific thermal conductivities is found in the TIMSA HVAC Guidance for achieving compliance with Part L of the Building Regulations</p>	