**13. Mains Water Pipework and Fittings**

New external above ground mains water pipework risers, along balconys and up to entry into each dwelling to be completed in Cross Bonded Polyurethane (PE-Xa) tube and couplings DIN 16892 suitable for max water temperatures (constant) 80C at 6-10bar.

The PE-Xa pipework is to be installed complete with all necessary joints, couplers, brackets, anchors, clips and accessories as required for its complete and satisfactory installation in accordance with the manufacturers instructions.

**9. Heating Distribution Pipework and Fittings**

The new main external primary heating risers and laterals are to be installed in heavyweight steel tube and fittings to BS 1387:1990 complete with line size expansion bellows, guides and anchors as required. Pipework 65mm above to be welded and flanged. Each main branch to be fitted with IV/DRV-MS and binder points.

Each riser shall be fitted complete with air bottle and Winns AAV at the highest point and draincock at all low points.

The new risers and lateral supplies are to be tested prior to connection to the new underground supplies and new internal systems.

**17. Insulation & Cladding to Distribution Pipework**

The contractor shall include for the insulation to all new external distribution pipework. Insulation to be in accordance with relevant clause in section 1 of this specification.

Insulation to new exposed external pipework, flanges and fittings to be completed in foil faced rigid section rockwool suitably taped along seams and joints. Valves to be insulated with velcro fastening jackets.

All above ground exposed insulated pipework to be externally finished with rigid galvanised steel cladding fixed to walls and underside of balconies complete with tensioners, fixing frame / support bracketry all in accordanec with DW144. The cladding is to be factory finished with epoxy powder coated paint. RAL colour TBA. Cladding to be sealed with mastic along all seams and joints to prevent water penetration.

**The contractor shall ensure adequate separation or compartmentation of heating and mains water pipework within service ducts to minimise heat transfer. If upon handover and within the defects period heat transfer does occur the contractor will return to undertake whatever remedial works are required to rectify this.**

External cladding system to extend no more than 240mm out from the face of the external wall for the largest section of pipework ie 65mm htg F&R and 40mm mains water adjusted in depth as pipework size decreases. The height of the external cladding to remain at 600mm along its full length with the top lid gradient no less than 30 to the horizontal.