

Tank protection

- 1.45 All water storage tanks with a capacity of more than 50,000 litres shall be partitioned, in order to allow maintenance activities to take place without causing supply interruptions (unless a second tank is available). If the tank is internally partitioned, each compartment shall be treated as an independent water tank. As far as these guidelines are concerned, the partition must extend the full height of the tank, and each compartment must be capable of supporting water on either side with one side empty. All other inlet and outlet connection arrangements must be considered, and separate inlet and outlet connections, overflow, flow control, drainage and isolation valves provided.
- 1.46 All water storage tanks or cisterns manufactured from translucent material (plastic polymers) shall be protected from solar heat gains by factory-made insulation. The insulation shall be made of rigid foam of suitable thickness calculated in accordance with BS EN 1057, resistant to ultraviolet radiation, or as approved by the Distribution Company.
- 1.47 The water storage tanks and associated fittings shall be designed with consideration to the prevailing climatic conditions of the Emirate of Abu Dhabi, and shall be suitable for the storage of desalinated water, well water and/or a mixture of both unless specifically mentioned otherwise. Prevailing climate conditions as a minimum:
- (a) maximum ambient temperature in the shade: 52°C;
 - (b) minimum ambient temperature: 1°C;
 - (c) maximum ambient relative humidity: 100%; and
 - (d) wind speed: 22 km/hr.
- 1.48 Every water storage tank and cistern shall be adequately supported to prevent thermal movement or distortion or damage to it, or to any water fitting connected to it. Any water jet shall be directed away from the tank sides and joints.
- 1.49 Tank foundation and, where required, shed installation, should be of rigid construction, permanent in nature and of a durable weather-resistant material. The expected life of the shed and foundation shall be more than, or similar to, that of the tank itself. The tank foundation shall be rigid, smooth and level. The shed roof shall extend beyond the boundaries of the water tank by one metre. The roof space above the cover shall be no less than 400mm and no more than 800mm.

Storage tank testing and disinfection (new installations)

- 1.50 After completion of tank installation, the tank shall be hydrostatically tested in accordance with the following: