

- d) Store pipes and fittings on a flat level area as recommended by the pipe manufacturer. Ensure that pipes and fittings supplied either on pallets or crated, remain on the pallets or in their crates until required.
  - i. Stack non-crated pipes to the approval of the Engineer.
  - ii. Stack spigot and socket pipes so that successive pipe layers have sockets protruding at opposite ends of the stack.
  - iii. Stack pipes of different sizes and thickness separately.
  - iv. Do not allow stacked pipes to exceed 2m in height or as recommended by the supplier whichever is the lesser.
- e) Store GRP pipes and fittings under opaque cover and out of direct sunlight at all times. Maintain a free flow of air around the pipes at all times.
- f) Store rubber joint rings in a well-ventilated place free from exposure to sunlight and in their original packing until they are needed.
- g) The Contractor shall visually inspect all products upon delivery to site and report any damage to the Engineer.
  - i. Any products damaged during delivery, storage and handling shall be marked by the Contractor and set aside.
  - ii. Proposals for repair of any repairable products shall be submitted in writing to the Engineer for approval.
  - iii. Any damaged products deemed unsuitable for repair by the Engineer shall be removed from the site and replaced, with an equal.

## **18.2 Part 2 Products**

### **18.2.1 Pipe Design Requirements**

The design requirements for GRP pipes shall be, as given below unless otherwise indicated on the drawings or on recommendations of Manufacturer depending on site conditions (soil, installation, compaction, loads etc.) in compliance to the Special Warranty conditions, quoted elsewhere in this document.

#### **Design Requirements of GRP pipes**

- a) Minimum initial specific stiffness shall be