

sealant to prevent the ingress of loose material or concrete. This sealing shall be carried out immediately on completion of a satisfactory initial hydraulic test prior to concreting or backfilling but not prior to the test.

- i) Ensure that all pipes and fittings are sound and clean before laying. When pipe laying is not in progress, ensure that the pipe ends are at all times fitted with watertight plugs or caps. The plugs or caps shall only be removed for the purposes of making a connection of the pipe end or testing the pipeline. The plugs or cap shall be replaced immediately on completion of the test.
- j) Excavation for or laying of uPVC pipes shall not proceed until an approved device for gauging pipe deflections is on site.
- l) Use a suitable mechanized device to the approval of the Engineer for gauging pipe deflections. Maintain devices for gauging pipe deflections in good working order. Submit calibration certificates before every period of use. Diametric dimensional measurement of the pipe, both vertically and horizontally shall be made and recorded. Each deflection measurement taken along the length of the pipeline shall be identified and recorded. Provide a continuous print out or a visual display of the measurements on a remote monitor. The device shall be calibrated before each pipe length is tested.

22.3.2 Hydrostatic Testing of Pipelines

- a) Field test of completed uPVC pipelines shall be in accordance with Section 02810.
- b) Proposed methods and program for testing, including details of test equipment, shall be submitted to the Engineer for approval. All tests shall be witnessed by the Engineer or other person appointed by the Owner. All equipment necessary for carrying out testing and cleaning including water, pumps, gauges and calibration certificates, piped connections, stop ends and all other temporary works shall be provided prior to commencement of testing.
- c) Use potable water for hydrostatic testing and pipeline cleaning. The Contractor must make his own arrangement for the supply and disposal of water used for testing which must be obtained from a source accepted by the Engineer.
- d) The pipeline shall be tested in sections as the Engineer may direct or permit. Each section shall be tested separately. Testing shall not be carried out against closed valves.