

2. The filler shall be able to recover more than 98% after 50% compression and shall have a compressive strength of at least 0.15 N/mm<sup>2</sup>.

### **11.2.6 Joint Sealant**

1. Joint sealant shall be non-degradable for its particular application and be suitable for use in the climatic conditions of Abu Dhabi with a minimum life expectancy of 15 years and shall have a proven track record of no less than 10 years under similar climatic conditions. In the event that any defects occur within 10 years of completion of the works, the Contractor shall arrange all repairs necessary to remedy the defects.
2. Joint sealant for exposed joints shall be grey unless otherwise specified.
3. Joint sealants for use in all types of joints in water retaining structures and water tight structures subjected to a sewage environment shall be polyurethane based. The polyurethane based sealant shall be a cold applied two part sealant.
4. Polysulphide based sealant shall be a cold applied two part sealant. Polysulphide based sealant for use in expansion joints in water retaining structures and water tight structures shall have a movement accommodation factor of at least 20%.
5. The appropriate hardness of elastomeric sealants shall be determined in consultation with the manufacturer, considering joint movement and exposure conditions for the size of joint to be sealed. Any sealant exposed to traffic shall have adequate strength and modulus of elasticity to resist damage by traffic.
6. Backing rod shall be a proprietary type recommended by the sealant manufacturer and have a diameter 25% greater than the joint width.
7. Bond breaker tape shall be a proprietary type recommended by the sealant manufacturer and shall be the full width of the joint.

## **11.3 Part 3 Execution**

### **11.3.1 Construction Joints**

1. Watertight construction joints shall be provided in water retaining structures and structures below ground water table. Construction joints should preferably be provided by exposing the aggregate and cement matrix of the set surface and casting the new concrete against this. This method may avoid the need for waterstops. However, it is essential that such joints are watertight and it may be necessary to provide waterstops depending on conditions and the contractor's methodology.
2. Injection hose systems may be used in construction joints and shall be installed in accordance with the manufacturer's instructions with resin being injected according to manufacturer's recommendations until resin is seen to exit the joint face.