

## **GENERIC SPECIFICATION FOR PIPE POINT REPAIR**

### **1. INTENT**

- (1.1) It is the intent of this Specification to provide for the reconstruction of short lengths of pipelines and conduits by the installation of a resin-impregnated fiberglass mat which is wrapped around a carrier packer and then inflated in a short length of the pipeline to form a hard, impermeable, corrosion resistant pipe within a pipe. When cured, the cured-in-place-point repair will be formed to the original conduit. This reconstruction process can be used in a variety of gravity applications such as sanitary sewers and storm sewers.
- (1.2) This is a standard Specification and may require modification for specific job conditions.

### **2. PREQUALIFICATION**

- (2.1) Only bids from qualified products and contractors will be read. Bids submitted on products or from contractors that have not been qualified will be returned unopened. The contractor and the proposed method of reconstruction shall be clearly and legibly identified on the bid envelope.

### **3. MATERIALS**

- (3.1) The fiberglass mat should consist of two or more layers of 0/90° bias woven fiberglass with a Trevara felt coating on one side prescribed to the circumference and length of the repair being made. It shall be capable of carrying resin, withstanding installation pressures and curing temperatures. The fiberglass mat should be compatible with the resin system used. The fiberglass mat, when installed, will form to the internal circumference of the original pipe. Allowance should be made for circumferential stretching during installation.
  - a. Resin - A two-component, 100% solid epoxy or a silicate base, ambient cure, low viscosity and corrosion resistant resin that is compatible with the installation process should be used. The Cured In Place Point Repair can be expected to have as a minimum structural properties given in Table 1.

#### 4. STRUCTURAL REQUIREMENTS

Table 1. Structural Requirements

<u>Test Method</u>	<u>Minimum Value</u>	
Property	psi	(Mpa)
Flexural Strength	D790 10,000	(31)
Flexural Modulus	D790 750,000	(1,724)

The values in Table 1 are considered minimum for field inspection. The purchaser should consult the seller for the particular resin system to be used for the long-term design properties.

(4.1) The Cured In Place Point Repair shall be designed as per ASTM F1216, taking into consideration the condition of the existing pipe.

#### 5. INSTALLATION

(5.1) The fiberglass mat shall be thoroughly wet out with the catalyzed resin.

(5.2) The impregnated fiberglass mat shall be wrapped around the carrier packer and secured in place using ties supplied by the manufacturer.

(5.3) The carrier packer shall be winched to the damaged area and positioned by Closed Circuit TV camera (if necessary) guiding the installation. The carrier packer shall be inflated not to exceed the pressures recommended by the manufacturer and held in place until the point repair cures.

**6. INSPECTION**

(6.1) The installation may be inspected visually if appropriate, or by closed-circuit television. Variations from true line and grade may be inherent because of the conditions of the original piping.

(6.2) The finished Cured In Place Point Repair should be continuous over the length of the repair area plus one foot extending into structurally sound pipe.

**7. CLEAN-UP**

(7.1) Upon acceptance of the installation work and testing, the Installer shall reinstate the project area affected by the operations.

**8. PAYMENT**

(8.1) Payment for the work included in this section will be in accordance with the prices set forth in the proposal for the quantity of work performed. Progress payments will be made monthly based on the work performed during that period.