

*This section includes a manufacturer's guide specification for EPS G-TEC™ geotechnical concrete structure protection. Refer also to manufacturer's Product Description for detailed product properties, options, and other technical information. This section includes performance, proprietary, and descriptive type specifications; edit to avoid conflicting requirements.*

## **Part 1            General**

### **1.1                SECTION INCLUDES**

*In this article, select the components that are intended to be part of the content of this section and will not be included in other sections. Keep the statements brief and concise.*

- .1        Elasticized expanded polystyrene material to reduce geomechanical stresses.

### **1.2                RELATED SECTIONS**

- .1        Section [03200] [03 20 00] – Concrete Reinforcement.
- .2        Section [03300] [03 30 00] - Cast-in-place Concrete: Supply of concrete.

### **1.3                REFERENCES**

*List reference standards that are included within the text of this section. Edit the following as required to parallel any reference standards statements within this section.*

- .1        ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.

### **1.4                SUBMITTALS**

*Do not request submittals if drawings sufficiently describe the products of this section or if proprietary specifying techniques are used. The review of submittals increases the possibility of unintended variations to drawings, thereby increasing the Specifier's liability. The following submittals are intended for review and acceptability.*

- .1        Section [01300] [01 33 00]: Submission procedures.
- .2        Product Data: Submit product data sheets in accordance with Section [01300] [01 33 00].
- .3        Samples:
  - .1        Submit samples for verification in accordance with Section [01300] [01 33 00].
  - .2        Submit 200 mm (8 inch) square pieces of foam material.
- .4        Installation Data: Special installation requirements.

### **1.5                QUALITY ASSURANCE**

- .1        Manufacturer: ISO 9001:2000 registered company.
- .2        Perform Work in accordance with manufacturer's instructions.

## 1.6 DELIVERY, STORAGE, AND PROTECTION

- .1 Section [01600] [01 61 00]: Transport, handle, store, and protect products.
- .2 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .3 Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- .4 Store materials off ground, protected from direct sunlight if product is to be exposed for one month or more.
- .5 Remove damaged or deteriorated Products from site.

## 1.7 ENVIRONMENTAL REQUIREMENTS

- .1 Section [01600] [01 61 00]: Environmental conditions affecting products on site.

## Part 2 Products

### 2.1 MANUFACTURERS:

- .1 Beaver Plastics: Product "G-TEC".
- .2 Substitutions: [Refer to Section 01600.] [Not permitted.] [Refer to Instructions to Bidders.]

### 2.2 MATERIALS

- .1 Foam Boards: Rigid closed cell, expanded polystyrene (EPS).
  - .1 Flame Spread Index/ Smoke Developed Index: Less than 25/450 to ASTM E84.
  - .2 Compressive Strength: Approximately 27.5 kPa (4 psi). @ 10% Strain
  - .3 Panel size: <1220 mm> <<4 feet>> x <1220 mm> <<4 feet>>.

*Generally, thickness of panels is based on 5% of structure height in contact with soil. A full geotechnical evaluation of soil type, compaction levels, wall geometry and other factors could produce a site-specific recommendation. Refer to manufacturer's Product Description for detailed product properties, options, and other technical information, or contact manufacturer for assistance in determining thickness.*

- .1 Thickness: [\_\_\_\_\_].

### 2.3 FABRICATION

- .1 Fabricate foam material from inert closed cell expanded polystyrene (EPS), modified to improve the useful response to soil movement.

**Part 3 Execution**

**3.1 PREPARATION**

- .1 Verify that concrete structures, surrounding excavation / fill, and [\_\_\_\_\_] and site conditions are ready to receive work.
- .2 Beginning of installation implies acceptance of site conditions.

**3.2 INSTALLATION**

- .1 Install foam boards to manufacturer written instructions and at locations indicated.

**3.3 PROTECTION OF FINISHED WORK**

- .1 Section [01700] [01 45 00]: Protecting installed work.
- .2 Protect finished Work from damage.

**END OF SECTION**