

**KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, EDITION 2015**

SECTION 1732

GEOFOAM

1732.1 DESCRIPTION

This specification covers the geofam lightweight Expanded Polystyrene (EPS) fill for use at locations as designated in the Contract Documents. This includes lightweight embankment fill and to fill formed voids in the embankment behind abutments.

1732.2 MATERIALS

a. General. Use EPS blocks in standard sizes that are typically from 4 feet wide x 2.5 feet thick x 8 to 16 feet long.

During the manufacturing process, incorporate into all EPS blocks a tested and proven EPA registered material complying with ICC ES EG239 for termite treatment with a minimum 3 year field exposure limit.

Provide a minimum of 4 Geogripper Plates per block to restrain the EPS from moving laterally in layer over layer applications. Make the plate of galvanized or stainless steel with two-sided multi-barbed design capable of piercing the EPS. Make each plate capable of holding a lateral load of 60 lbs.

Use Grade 2.5 concrete for the cap that complies with the **SECTION 401**.

b. Fill. Provide EPS22 (or higher) type blocks complying with ASTM D6817 with the minimum requirements shown in **TABLE 1732-1**:

TABLE 1732-1: EPS22 MINIMUM REQUIREMENTS	
Property	Requirement
Density	1.35 lb/cu ft;
Compressive Resistance	7.3 psi at 1% deformation
Flexural Strength	35 psi

c. Void Fill. Provide EPS12 type blocks complying with ASTM D6817 with the minimum requirements shown in **TABLE 1732-2**.

TABLE 1732-2: EPS12 MINIMUM REQUIREMENTS	
Property	Requirement
Density	0.70 lb/cu ft;
Compressive Resistance	2.2 psi at 1% deformation
Flexural Strength	10 psi

1732.3 TEST METHODS

Test in accordance with ASTM D6817.

1732.4 PREQUALIFICATION

Geofoam must be prequalified. Submit a written request to be evaluated for prequalification to the Bureau Chief of Construction and Materials. Provide the following for each brand and type of material to be evaluated:

- Name and address of the manufacturer.
- Brand name of the material.

- Two copies of a certified test report showing test results complying with the requirements of ASTM D6817. Test results are to be no more than 36 months out of date.

1732.5 BASIS OF ACCEPTANCE

a. Receipt and approval of a Type C certification as specified in **DIVISION 2600**. Include a statement about the presence of a termite treatment in all blocks delivered to the job site.

b. **Verification Testing.** For EPS22 (or higher) type blocks, perform random sampling and independent testing for compressive strength and density in accordance with **TABLE 1732-3**. Failure of the samples to meet the compressive strength or density specification will serve as a basis for rejection of the entire lot as well as the product's removal from prequalified status.

TABLE 1732-3: TESTING FREQUENCY	
Embankment Volume (cubic yards)	Number of EPS Blocks Sampled
< 650	3
650 – 1300	4
> 1300	5

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