
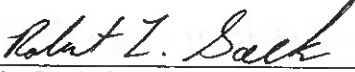


To: <p style="text-align: center;">SUPERSEDED BY <u>FEB 06-057</u> EFFECTIVE <u>5/3/07</u></p>		<p style="text-align: center;"><i>New York State Department of Transportation</i> ENGINEERING INSTRUCTION</p>	<p style="text-align: center;">EI 04-022</p>
Title: REVISED STANDARD SPECIFICATION FOR §705-08 PREFORMED, CLOSED-CELL FOAM MATERIAL			
Distribution: <input checked="" type="checkbox"/> Manufacturers (18) <input type="checkbox"/> Surveyors (33) <input checked="" type="checkbox"/> Local Govt. (31) <input checked="" type="checkbox"/> Consultants (34) <input checked="" type="checkbox"/> Agencies (32) <input checked="" type="checkbox"/> Contractors (39) <input type="checkbox"/> _____ ()	Approved: <div style="text-align: center;">  <hr/> R. L. Sack, Deputy Chief Engineer Technical Services </div> <div style="text-align: right;"> <u>30 Apr. 04</u> Date </div>		

ADMINISTRATIVE INFORMATION:

- **Effective Date:** This Engineering Instruction (EI) is effective beginning with projects scheduled for the letting of September 9, 2004.
- **Superseded Issuances:** None
- **Disposition of Issued Materials:** The specification revision will be included in future updates to the Standard Specifications.

PURPOSE: The purpose of this EI is to transmit a revised Standard Specification for Preformed, Closed-Cell Foam Material.

TECHNICAL INFORMATION:

- Preformed, closed cell foam material is used primarily in structural expansion joint systems. The reason for the revision is to clarify the testing procedures and to establish acceptance criteria. Eliminated are the Type I and II designations from the 705-08 specification. The former Type I material will be an Approved List Item 705-08 for use in structural expansion joint systems. The former Type II (filler) material will be identified as ASTM D 1056 – Grade 2B1 or 2B2 material.
- Interim Guidance – For applications where 705-08-Type II Joint Filler is currently used (ie., concrete barrier) the specification references (Section 569 and 606) will be revised to identify material meeting specification ASTM D 1056 – Grade 2B1 or 2B2.
- Future revisions of Bridge Detail Sheets BD-IA4 and BD-IA5 (semi-integral abutments) will remove any reference to §705-08, preformed, closed-cell foam (Type II), and replace it with joint filler material meeting the requirements of ASTM D 1056 – Grade 2B1 or 2B2.
- Future revisions of Bridge Detail Sheets BD-JT1 and BD-SA2 (R3), will remove any reference to the Type I designation and only refer to material specification 705-08, preformed, closed-cell foam material.

IMPLEMENTATION:

- The attached shelf notes will be inserted into all contract proposals containing 567, 569, or 606 items by Main Office DQAB, beginning with contracts scheduled for the letting of September 9, 2004.

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TRANSMITTED MATERIALS:

- Shelf note for §569 PERMANENT CONCRETE TRAFFIC BARRIER FOR STRUCTURES
- Shelf note for §606 GUIDE RAILING
- Shelf note for §705-08 PREFORMED, CLOSED-CELL FOAM MATERIAL

REFERENCES:

1. *Annual Book of ASTM Standards - Volumes 04.03, 08.01 and 08.02.*

CONTACT: Direct questions regarding this EI to the General Engineering Section of the Materials Bureau at (518) 457-4285.

SECTION 705 – JOINT MATERIALS

Make the following changes to Volume 3 of 3 of the Standard Specifications of January 2, 2002:

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Delete § “705-08 Preformed, Closed Cell Foam Material” in its entirety and *replace* it with the following:

705-08 PREFORMED, CLOSED-CELL FOAM MATERIAL

SCOPE. This specification covers the requirements for preformed, closed-cell foam material.

MATERIAL REQUIREMENTS

General. Closed-cell foam material is used primarily as the joint seal in structural expansion joint systems. The joint material shall remain unaffected by road salts and petroleum products. The material shall also be capable of maintaining a waterproof joint within the range of 50% compression and 25% tension. The joint material shall have grooves along the entire length of the bond surfaces for enhanced bonding performance. The grooves shall be 3 mm deep × 3 mm wide and spaced from 6 mm – 13 mm apart.

Installation. Install the preformed, closed-cell foam material according to the manufacturer’s recommended procedure. If a bonding agent is required, it shall be one which is recommended by the manufacturer.

Physical Properties. The joint material shall be a closed-cell, cross linked, expanded polyethylene. Material will meet the properties of Table 705-1.

Table 705-1

Property	Test Method	Specification	
		Minimum	Maximum
Extrusion	ASTM D545 @ 50% Compression 3 Sides Restrained	--	6 mm
Compression Deflection	ASTM D3575, Suffix D 50% Deflection @ 25 °C	69 kPa	414 kPa
Density	ASTM D3575, Suffix W, Method A	30 kg/m ³	54 kg/m ³
Water Absorption	ASTM D545	--	3 %
Compression Set	ASTM D1056, 50% Deflection for 22 hrs. @ 23 ± 2°C	--	15% @ 168 hrs.

DIMENSIONS. The joint material shall be of the thickness and width described in the contract documents within a tolerance of +10% and -2%. Joint material shall be heat welded to the proper dimensions by the manufacturer. No glue or chemical agents shall be used to join pieces together. No laminations in width shall be allowed.

BASIS OF ACCEPTANCE. Acceptance of this material will be based on the product name appearing on the Department’s Approved List for Preformed Closed-Cell Foam Material.

