DISCLAIMER: The manufacturer has reviewed the product information contained in this short form specification. The information is organized and presented to assist the specification writer working on a construction project to select the appropriate products and to save time in writing the project specification Section. The specification writer is responsible for product selection as well as the use and application of this information, and should contact the manufacturer to ensure that all options are available and that the associated specification information is valid and correct.

SPEC NOTE: Insert the required paragraphs into the Section under the noted Articles, and make any required selections. Where selection is indicated with an [OR] statement, select the appropriate paragraph and delete the inappropriate statement. Delete all SPEC NOTEs and [OR] statements prior to final printing.

SECTION 07 2100

THERMAL INSULATION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. STYROFOAM™ Brand LT Series Column-Bearing Blocks.

1.02 REFERENCE STANDARDS

A. [ASTM C518](http://global.ihs.com/doc_detail.cfm?rid=BSD&document_name=ASTM%20C578) - Standard Test Method for Stead-State Thermal Transmission Properties by Means of Heat Flow Meter Apparatus; 2016.

B. ASTM D1621 - Standard Test Method for Compressive Properties of Rigid Cellular Plastics; 2016.

C. ASTM D1622 - Standard Test Method for Apparent Density of Rigid Cellular Plastics; 2016.

1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data on product characteristics, performance criteria, and product limitations.

1.04 QUALITY ASSURANCE

A. Source Limitations: Obtain foam bearing blocks through one source from a single manufacturer.

1.05 FIELD CONDITIONS

A. Application Temperatures: Comply with Manufacturer's recommendations for product applications.

PART 2 PRODUCTS

2.01 APPLICATIONS

A. Thermal Barrier under Steel Columns: High Compressive Strength Polyurethane Foam.

2.02 FOAM BARRIER MATERIALS

A. Polyurethane Foam; with the following characteristics:

1. Basis of Design:
	1. Dow Chemical Company; **STYROFOAM™ LT-1000 Column-Bearing Block**: www.dowbuildingsolutions.com
2. Nominal Density: ASTM D1622 30 PCF.
3. R-value per inch per ASTM C518: 1.95.
4. Compressive Strength (2% deflection) per ASTM D1621: 1,000 PSI.
5. Compressive Modulus (2% deflection) per ASTM D1621: 45,500 PSI.
6. K Factor per ASTM C518: 0.513 Btu/(ft2\*h\*°F).
7. Recycled Content: Average of 20% pre-consumer certified by UL Environment Inc.

**[OR]**

B. Polyurethane Foam; with the following characteristics:

1. Basis of Design:
	1. Dow Chemical Company; **STYROFOAM™ LT-1500 Column-Bearing Block**: www.dowbuildingsolutions.com
2. Nominal Density: ASTM D1622 35 PCF.
3. R-value per inch per ASTM C518: 1.75.
4. Compressive Strength (2% deflection) per ASTM D1621: 1,500 PSI.
5. Compressive Modulus (2% deflection) per ASTM D1621: 59,000 PSI.
6. K Factor per ASTM C518: 0.571 Btu/(ft2\*h\*°F).
7. Recycled Content: Average of 20% pre-consumer certified by UL Environment Inc.

 **[OR]**

C. Polyurethane Foam; with the following characteristics:

1. Basis of Design:
	1. Dow Chemical Company; **STYROFOAM™ LT-1800 Column-Bearing Block**: www.dowbuildingsolutions.com
2. Nominal Density: ASTM D1622 30 PCF.
3. R-value per inch per ASTM C518: 1.60.
4. Compressive Strength (2% deflection) per ASTM D1621: 1,800 PSI.
5. Compressive Modulus (2% deflection) per ASTM D1621: 66,000 PSI.
6. K Factor per ASTM C518: 0.625 Btu/(ft2\*h\*°F).
7. Recycled Content: Average of 20% pre-consumer certified by UL Environment Inc.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate, adjacent materials, and foam materials are dry and that substrates are clean, smooth, and ready to receive foam.

3.02 INSTALLATION ON CONCRETE FOUNDATION

A. Wet blocks should be wiped or allowed to air dry before installation.

B. Do not use any damaged or broken blocks.

C. Do not allow blocks to bridge voids/gaps or to sit on surface projections greater than 1/8” high.

D. Fast-setting cementitious leveling grout should be applied between the foam bearing material and mating structure whenever possible.

3.03 FIELD QUALITY CONTROL

A. See Section 01 4000 - Quality Requirements, for additional requirements.

3.04 PROTECTION

A. Do not permit installed foam to be damaged prior to its concealment.

END OF SECTION

**NOTICE**: No freedom from any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer’s use and for ensuring that Customer’s workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where Dow is represented. The claims made may not have been approved for use in all countries or regions. Dow assumes no obligation or liability for the information in this document. References to “Dow” or the “Company” mean the Dow legal entity selling the products to Customer unless otherwise expressly noted. NO EXPRESS WARRANTIES ARE GIVEN EXCEPT FOR ANY APPLICABLE WRITTEN WARRANTIES SPECIFICALLY PROVIDED BY DOW. ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

**STYROFOAM™ Brand Spray Polyurethane Foam** contains isocyanate, hydrofluorocarbon blowing agent and polyol. Read the instructions and (Material) Safety Data Sheet ((M)SDS) carefully before use. Wear protective clothing (including long sleeves), gloves, goggles and proper respiratory protection. Supplied air or an approved air-purifying respirator equipped with an organic vapor sorbent and a P100 particulate filter is required to maintain exposure levels below ACGIH, OSHA, WEEL or other applicable limits. Provide adequate ventilation. Contents under pressure. STYROFOAM™ Brand SPF should be installed by a trained SPF applicator.
**CAUTION**: When cured, these products are combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240ºF (116ºC). For more information, consult (Material) Safety Data Sheet ((M)SDS), call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

**GREAT STUFF PRO™** Insulating Foam sealant and adhesive products contain isocyanate and a flammable blowing agent. Read all instructions and (Material) Safety Data Sheet ((M)SDS), carefully before use. Eliminate all sources of ignition before use. Cover all skin. Wear long sleeves, gloves, and safety glasses or goggles. Not for use in aviation, or food/beverage contact, or as structural support in marine applications. Provide adequate ventilation or wear proper respiratory protection. Contents under pressure. Not to be used for filling closed cavities or voids such as behind walls and under tub surrounds.
**CAUTION**: When cured, these products are combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240ºF (116ºC). For more information, consult (Material) Safety Data Sheet ((M)SDS), call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

**Dow Polyurethane Foam Insulation and Sealant**
**CAUTION**: When cured, these products are combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240ºF (116ºC). For more information, consult (Material) Safety Data Sheet ((M)SDS), call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.
**CAUTION**: This product is combustible and shall only be used as specified by the local building code with respect to flame spread classification and to the use of a suitable thermal barrier. For more information, consult (Material) Safety Data Sheet ((M)SDS), call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

**LIQUIDARMORTM**Read the instructions and (Material) Safety Data Sheets ((M)SDS) carefully before use. It is recommended that spray applicators and those working in the spray area wear eye protection. Contact with exposed skin may cause skin discoloration and dryness. Gloves are recommended for prolonged exposures. Ensure adequate ventilation during spray applications.

**THERMAXTM Brand Polyisocyanurate Insulation**CAUTION: This product is combustible and shall only be used as specified by the local building code with respect to flame spread classification and to the use of a suitable thermal barrier. For more information, consult (Material) Safety Data Sheet ((M)SDS), call Dow at 1-866-583-BLUE (2583), or contact your local building inspector. In an emergency, call 1-989-636-4400.

**STYROFOAMTM Extruded Polystyrene Foam Insulation
CAUTION**: This product is combustible. Protect from high heat sources. A protective barrier or thermal barrier may be required as specified in the appropriate building code. For more information, consult (Material) Safety Data Sheet ((M)SDS), call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

**WARNING**: Rigid foam insulation does not constitute a working walkable surface or qualify as a fall protection product.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including Dow can give assurance that mold will not develop in any specific system.

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