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DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 21 00 – Thermal Insulation

Section: 07 25 00 – Water-Resistive Barriers/Weather Barriers

Section: 07 27 22 – Air Barriers

REPORT HOLDER:

The Dow Chemical Company

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REPORT SUBJECT:

STYROFOAM™ Brand PLAZAMATE™ Extruded Polystyrene Foam Insulation

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2012 *International Building Code*® (IBC)
- 2012 *International Residential Code*® (IRC)

1.2 STYROFOAM™ Brand PLAZAMATE™ has been evaluated for the following properties):

- Allowable compressive bearing capacity
- Allowable compressive modulus of elasticity

1.3 STYROFOAM™ Brand PLAZAMATE™ has been evaluated for the following use:

- Insulation in rooftop structures such as Plaza deck installations

2.0 STATEMENT OF COMPLIANCE

STYROFOAM™ Brand PLAZAMATE™ complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.

3.0 DESCRIPTION

3.1 STYROFOAM™ Brand PLAZAMATE™ is extruded polystyrene foam insulation.

3.2 STYROFOAM™ Brand PLAZAMATE™ insulation boards are produced in panels measuring 2 feet (609.6 mm) by 8 feet (2438.4 mm) with thicknesses from 1.5 inch (38.1 mm) to 3 inches (76.2mm).

4.0 PERFORMANCE CHARACTERISTICS

4.1 STYROFOAM™ Brand PLAZAMATE™ is a Type VII Extruded Polystyrene (XPS) qualified in accordance with ASTM C578.

4.2 When STYROFOAM™ Brand PLAZAMATE™ insulation boards are installed as part of a system that includes: continuous support from a structural deck, the appropriate water proofing materials, pavers and/or fill, such as in plaza deck installations; the allowable compressive bearing capacity for conditions without continuous cyclic loading (i.e., highway vehicle loading) is 20 psi and the compression modulus of elasticity is 2200 psi.

5.0 INSTALLATION

5.1 STYROFOAM™ Brand PLAZAMATE™ must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.2 STYROFOAM™ Brand PLAZAMATE™ insulation boards shall be installed as described in UL Listing TJBX.R3573 for Fire Classified Constructions. The Authority having jurisdiction is to be consulted as to which type of roof deck construction is acceptable for specific locations per Table 1505.1 of the IBC.

6.0 CONDITIONS OF USE

The STYROFOAM™ Brand PLAZAMATE™ insulation board identified in this report is deemed to comply with the intent



of the provisions of the referenced building codes per the following conditions:

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2 The insulation boards must be separated from the interior of the building by an approved thermal barrier in accordance with IBC Section 2603.4 or IRC Section R316.4 as applicable.

6.3 Loading conditions shall not include continuous cyclic loading (i.e., highway vehicle loading).

6.4 The fire classification of the roof assembly is not within the scope of this report. The roof assembly shall have a fire classification in accordance with IBC Section 1505.

6.5 *STYROFOAM™ Brand PLAZAMATE™* insulation board is manufactured in Pevely, Missouri and Channahon, Illinois, in accordance with the manufacturer's approved quality control system with inspections by UL LLC (IAS AA-668).

7.0 SUPPORTING EVIDENCE

7.1 Manufacturer's technical literature.

7.2 Reports of testing demonstrating compliance with ASTM C578, Standard Specification for Rigid Cellular Polystyrene Thermal Insulation.

7.3 ICC-ES ESR-2142.

7.4 UL Listing QORW.R3573 describing *STYROFOAM™* Brand *PLAZAMATE™* compliance to ASTM C578.

7.5 UL Listing BRYX.R3573 describing Flame Spread and Smoke Development of *STYROFOAM™* Brand *PLAZAMATE™*.

7.6 UL Listing TJBX.R3573 describing Fire Classified roof assembly installations utilizing *STYROFOAM™* Brand *PLAZAMATE™*.

7.7 ASCE 32-01: "Design and Construction of Frost-protected Shallow Foundations".

8.0 IDENTIFICATION

The *STYROFOAM™* Brand *PLAZAMATE™* is identified with the manufacturer's name (The Dow Chemical Company) address and telephone number, the product name (*STYROFOAM™* Brand *PLAZAMATE™*), Insulation specification: Type VII Extruded Polystyrene (XPS) qualified in accordance with ASTM C578, Lot Number, and the Certification Mark of Underwriters Laboratories.

9.0 OTHER CODES

This section is not applicable.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

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