THE PLYCEM COMPANY, INC.
Paraiso, Cartago, Costa Rica
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PLYSTONE SUBFLOOR PANEL

CSI Section:
06 16 63 Cementitious Sheathing

1.0 RECOGNITION

The Plystone Subfloor Panel described in this report has been evaluated for use as floor sheathing to support gravity loads for interior use. The surface burning characteristics and strength, physical, and noncombustibility properties were evaluated for compliance with the following codes and regulations:

- 2018, 2015, 2012, and 2009 International Building Code® (IBC)
- 2018, 2015, 2012, and 2009 International Residential Code® (IRC)

2.0 LIMITATIONS

Use of the Plystone Subfloor Panel described in this report is subject to the following limitations:

2.1 Installation of Plystone Subfloor Panel shall be in accordance with this report, the project calculations and details, installation instructions, and the applicable code. If there are any conflicts between the manufacturer's published installation instructions and this report, the more restrictive shall govern.

2.2 Use of Plystone Subfloor Panel as a component of a horizontal diaphragm is outside of the scope of this report.

2.3 Plystone Subfloor Panel is for internal use only and shall be protected from the weather at all times.

2.4 The Plystone Subfloor Panel recognized in this report shall be manufactured in Paraiso, Cartago, Costa Rica.

3.0 PRODUCT USE

3.1 General: Plystone Subfloor Panel consists of fiber-reinforced cement sheets which are mechanically fastened over steel floor joist framing using screw fasteners as described in Section 4.2 of this report. The sheets are sheathing grade requiring a code-complying underlayment on top.

Describe the design basis indicating how the product was deemed in compliance with the applicable provisions of the codes.

Provide a short explanation of the design procedures required to go through in order to determine the adequacy of your product for the intended use.

Edit to reflect the design process specific to your products. Include links and references to any applicable materials.

3.2 Design: Plystone Subfloor Panel shall be installed over supporting steel floor joist that have been designed and constructed to satisfy the strength and deflection requirements of the IBC or IRC, as applicable. The joists and supporting structural members shall be designed to support the uniformly distributed lives loads or the concentrated live loads given in Table 1607.1 of the IBC, whichever produces the greater load effect, or Table R301.5 of the IRC, as applicable. The allowable total uniform gravity load for Plystone Subfloor Panel in the long direction, when supported on a minimum of three spans spaced a maximum of 24 inches (610 mm) on-center, shall be 100 psf (4.79 kPa), with maximum deflection limited to ℓ/360.

3.3 Installation: Plystone Subfloor Panel shall be installed over cold-formed steel floor joists spaced a maximum of 24 inches (610 mm) on-center. Floor joists shall be in accordance with Section 4.3 of this report. Fasteners shall be in accordance with Section 4.2 of this report. The Plystone Subfloor Panel shall be supported along its shorter dimension, i.e. with the sheathing's long span perpendicular to the supporting joists. Each piece of Plystone Subfloor Panel shall be supported across three or more floor joists. Fasteners are driven flush with the surface of the Plystone Subfloor Panel.

4.0 PRODUCT DESCRIPTION

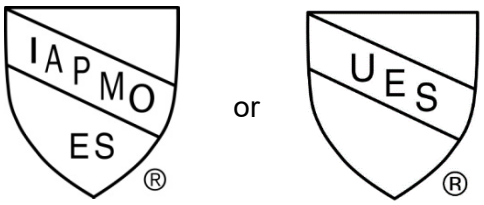
4.1 General: Plystone Subfloor Panel consists of 25 mm thick (1-inch nominally) fiber-cement sheets. Sheets are 4 feet wide by 8 feet long (1220 by 2440 mm) with tongue and groove edges along the long dimension. When tested in accordance with ASTM E84, the sheets exhibit a flame spread index of 0 and a smoke developed index of not more than 5. The fiber-cement is considered to be noncombustible in accordance with IBC Section 703.5.1.

4.2 Fasteners: Fasteners shall be minimum 1¾-inch (44.5 mm) long No. 8 corrosion resistant self-countersinking head screws with a minimum 0.36-inch (9.1 mm) head diameter. Minimum fastener edge distance shall be $^{3}/_{4}$ inch (19 mm).

4.3 Steel Floor Joists: Supporting steel floor joists shall be cold-formed steel with minimum G-60 galvanized coating and comply with IBC Section 2211.1. Joists shall be minimum No. 18 gauge (0.0538-inch [1.22 mm]), minimum 1.625 inch (41.3 mm) wide. The steel joists shall be designed in accordance with Section 3.2 of this report.

5.0 IDENTIFICATION

The Plystone Subfloor Panels recognized by this evaluation report shall be labeled with the manufacturer's name (The Plycem Company, Inc.) and address, product name, thickness, batch number, the name of the approved inspection agency (as applicable), and the Evaluation Report Number (ER-333). Either IAPMO UES Mark of Conformity may also be used as shown below:



IAPMO UES ER-333

6.0 SUBSTANTIATING DATA

6.1 Data in accordance with the applicable sections of ICC-ES Acceptance Criteria for Fiber-reinforced Cement Sheet Structural Floor Sheathing (AC367), dated February 2011, editorially revised April 2015.

6.2 Reports of combustion characteristics testing in accordance with ASTM E136.

6.3 Reports of linear expansion testing in accordance with DOC PS-2–10, Section 7.8.

6.4 Structural Calculations and Allowable Load Tables.

6.5 Test reports submitted are from laboratories in compliance with ISO/IEC 17025.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research carried out by IAPMO Uniform Evaluation Service on the Plystone Subfloor Panel to assess its conformance to the codes and standards shown in Section 1.0 of this report and documents the product's certification. The products are produced at locations noted in Section 2.4 of this report under a quality control program with periodic inspection under the supervision of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org