

CLIENT: Arxx Corporation
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Canada

Attn: Chris Palmer

Evaluation Report No: RJ0270-2

Date: August 24, 2009

Product ID: The following American PolySteel products for evaluation are identified as:
PS-3000: 6", 8" and 10" Waffle-Grid Insulating Concrete Forms
PS-4000: 6" and 8" Flat-Wall Insulating Concrete Forms

For a more detailed description please see page 2

AUTHORIZATION: Authorized by Chris Palmer, dated June 26, 2009.

EVALUATION REQUESTED: Engineering services/evaluation to update American PolySteel products recognized under 2004 Florida Building Code to the 2007 Florida Building Code. Includes standards review date and P.E. validation.

RESULTS: No changes in the standards have been found that justify any additional testing needed in order to state that American PolySteel Products are under the compliance of the 2007 Florida Building Code.

Signed

Chris Bowness, P.E.
Florida P.E. # 64748

08-25-09

EVALUATION PURPOSE

The purpose of this evaluation is to update recognition of American PolySteel ICF (now owned by Arxx Corporation) products currently recognized under the 2004 Florida Building Code to the 2007 Florida Building Code. This will include a review of all applicable standards currently recognized in American PolySteel's Florida Building Commission Approval, and to address and changes to the requirements that have taken place between the 2004 and 2007 versions of the Florida Building Code.

PRODUCT DESCRIPTION

PS-3000: Insulating concrete form wall assembly. A stay-in-place form for 6", 8" or 10" thick cast-in-place reinforced concrete wall for residential and commercial construction.

PS-4000: Insulating concrete form wall assembly. A stay-in-place form for a 6" or 8" thick cast-in-place reinforced concrete wall for residential and commercial construction.

LIMITATIONS OF USE

1. The American PolySteel ICF products shall comply with the standards required for product revision from the 2004 to the 2007 FBC. These have been listed and evaluated below to meet the necessary standard years as required by the 2007 FBC.
2. The American PolySteel ICF products have been evaluated and meet the requirements for use within the State of Florida including the "High Velocity Hurricane Zone."
3. Design and installation to be in accordance with ICC ES NER-515 Evaluation Report and ACI-318, Building Code Requirements for Structural Concrete. Complies with FBC Section 1626.4, #4, missile impact test, and FBC Section 2612, HVHZ Requirements.

REFERENCED REPORTS

1. Polystyrene Bead reports:
 - a. BASF Corporation: ICC-ES Legacy Report NER-479 issued 2009.
 - b. Huntsman Chemical Corporation: ICC-ES Legacy Report ESR-1634 issued 2008.
 - c. Styrochem U.S. Ltd.: ICC-ES Legacy Report ER-5687 issued 2007.
 - d. AFM Corporation's R-Control Perform Guard EPS: ICC-ES Legacy Report ESR-1006 issued in 2007.
2. American PolySteel ICC-ES Legacy Report NER-515, *Re-issued March 1, 2004.*
3. Certificate of Independence
by ICC-ES, Signed and Dated June 30, 2004.
4. Certificate of Independence
by Chris Bowness P.E. P.Eng.
Florida License # 64748.
5. Supporting Documentation from the American PolySteel 2004 Florida Building Code Submission FL#3619-R1.

STANDARDS EVALUATION

ACI-318, Building Code Requirements for Structural Concrete

Year required per code:

2004 Florida Building Code: ACI-318-02

2007 Florida Building Code: ACI-318-05

The design and installation shall be in accordance with the most current version of ACI-318.

ASTM D 1929, Determining Ignition Temperature of Plastics

Year required per code:

2004 Florida Building Code: ASTM D 1929-96(00)

2007 Florida Building Code: ASTM D 1929-96(00)

No change in standard issue date, therefore still applicable.

ASTM E 119, Fire Tests of Building Construction Materials

Year required per code:

2004 Florida Building Code: ASTM E 119-00

2007 Florida Building Code: ASTM E 119-00

No change in standard issue date, therefore still applicable.

ASTM E84, Surface Burning Characteristics of Building Materials

Year required per code:

2004 Florida Building Code: ASTM E 84-01

2007 Florida Building Code: ASTM E 84-04

The ICC-ES Legacy Report NER-515 (issued March 1, 2006) calls out the various suppliers of the expanded polystyrene beads used in the PolySteel form units.

- * BASF Corporation: ICC-ES Legacy Report NER-479 issued 2009
- * Huntsman Chemical Corporation: ICC-ES Legacy Report ESR-1634 issued 2008
- * Styrochem U.S. Ltd.: ICC-ES Legacy Report ER-5687 issued 2007
- * AFM Corporation's R-Control Perform Guard EPS: ICC-ES Legacy Report ESR-1006 issued in 2007

All of these reports were issued after 2004 using the most recent version of ASTM E 84 available. The Fire Lab Manager at QAI, Greg Banasky, explained that there has been no major technical change between the 2001 and 2004 editions of the ASTM E 84 standard. Therefore the PolySteel Products have met the requirements of the ASTM E 84-04 standard under the 2007 Florida Building Code.



RESULTS:

Standards	Year	FBC 2007 year compliance
ACI-318	2005	Yes
ASTM D 1929-96(2000)	2000	Yes
ASTM E 119	2000	Yes
ASTM E84	2004	Yes

All the necessary standards have been reviewed for any requirements or technical details that might have changed between the 2004 FBC requirements and the 2007 FBC requirements. It has been observed that no changes have been found that justify any additional testing needed in order to state that PolySteel Products are under the compliance of the FBC 2007.

End of Report