

QAI Listing – Evaluation Report

Applicant Number: B1020
Report Number: B1020-3

Primary Listee: Preferred Solutions, Inc.
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Cleveland, OH 44131

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Manufacturing Location: Preferred Solutions, Inc.
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Edition 1: June 17, 2011; Application Number B1020-1
Issued by: Chris Scoville, M. Sc.
Reviewed by: Chris Bowness, P.Eng
Contents: Pages 1 through 3

Update to Initial Certification Application by Preferred Solutions, Inc. for Staycell® spray applied polyurethane foam insulation products. Update includes Staycell® Hybrid System with Staycell® 265 base layer covered with Staycell® ONE STEP® 255 as the exposed surface.

Edition 2: February 27, 2012; Application Number B1020-2
Issued by: Chris Scoville, M. Sc.
Reviewed by: Chris Bowness, P.Eng
Contents: Pages 1 through 4

Review and approval for change in formulation for Staycell ONE STEP® 255 product. Reviewed by Chris Scoville, approved by Chris Bowness. Quarterly scans updated to include new formulation.

Edition 3: October 30, 2012; Application Number B1020-3
Issued by: Matt Lansdowne, EIT, M.Sc.
Reviewed by: Chris Bowness, P.Eng
Contents: Pages 1 through 5

Update to QAI listing to include Staycell® 275-2.0 and Staycell® 275-1.8 products ASTM E84 values. Update to QAI listing to include Staycell® 275 Hybrid system including Staycell® 275-2.0 or Staycell® 275-1.8 base layer component covered with Staycell ONE STEP® 255 as the exposed surface for walls and roof and ceiling applications.

APPLICABLE REQUIREMENTS:

ASTM E84-12 - "Standard Test Method for Surface Burning Characteristics of Building Materials".

UL 1715-97 "Standard for Fire Test of Interior Finish Material".

SUBJECT:

Staycell® 245-2.0 spray applied polyurethane foam insulation.

Staycell ONE STEP® 255 spray applied polyurethane foam insulation.

Staycell® 265 spray applied polyurethane foam insulation.

Staycell® 275-2.0 spray applied polyurethane foam insulation.

Staycell® 275-1.8 spray applied polyurethane foam insulation.

Staycell® 265 Hybrid System.

Staycell® 275 Hybrid System.

<u>Manufacturing Location(s):</u>	<u>QAI Number</u>
1) Preferred Solutions, Inc. 7819 Broadview Rd. Cleveland, OH 44131	1020

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Revision Date: February 19, 2013

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1. CONDITIONS OF ACCEPTANCE:

Products must successfully pass all factory tests prior to being labeled with the QAI_{US} logo.

Final acceptance of the product in the intended application is to be determined by the authority having jurisdiction.

2. MARKING

Finished products are drummed, and labeled with the finished product information outlined in the listing agreement. The labeling identifies the components for application into installation equipment to spray the appropriate ratio forming the finished installed product.

3. FACTORY TESTS:

Tests are to be conducted on every production run. These tests at minimum require Viscosity, Weight of Liquid components A & B, Density of Foam, quarterly FTIR Scans, Annual Flame Spread.

4. DESCRIPTION:

The finished product is a two-part, sprayed Polyurethane foam insulation. The two parts, A & B, are supplied in liquid form to the jobsite, and sprayed in place to form a solid foam plastic insulation, adhering and sealing the walls, roofs and ceilings. The density, thermal resistance, and performance depend on the selected Preferred Solutions Staycell® products below applied:

- Staycell® 245-2.0.
- Staycell ONE STEP® 255.
- Staycell® 265
- Staycell® 275-2.0.
- Staycell® 275-1.8.
- Staycell® 265 HYBRID System.
- Staycell® 275 HYBRID System.

5. TESTS:

Edition 3:

Tests outlined below were conducted by International Accreditation Service, Inc. accredited QAI Laboratories, Inc. Rancho Cucamonga, CA facility (TL-220) and NGC Testing Services Buffalo, New York facility (TL-216).

All samples for testing were randomly selected by an independent third party, and confirmed of normal manufactured and labeled products.

TESTING	RESULT	TEST REPORT	MEETS/DOES NOT MEET CURRENT REQUIREMENTS
ASTM E84-08 Staycell® 245-2.0	FSI ≤ 20 SDI ≤ 450 @ 4" Thickness + 2.0 pcf	QAI Test Report RJ0031-01A dated 2/11/2009	Staycell® 245-2.0 Meets current requirements for flame spread index and smoke developed index of ASTM E84-12.
ASTM E84-09 Staycell ONE STEP® 255	FSI ≤ 25 SDI ≤ 400 @ 4" Thickness + 2.0 pcf	QAI Test Report RJ1517-1 dated 9/6/2011	Staycell ONE STEP® 255 Meets current requirements for flame spread index and smoke developed index of ASTM E84-12
ASTM E84-07 Staycell® 265	FSI ≤ 25 SDI ≤ 350 @ 4" Thickness + 2.0 pcf	QAI Test Report RJ0118-01 dated 3/20/2009	Staycell® 265 Meets current requirements for flame spread index and smoke developed index of ASTM E84-12
ASTM E84-08 Staycell® 275-1.8	FSI ≤ 20 SDI ≤ 300 @ 2" Thickness + 1.8 pcf FSI ≤ 20 SDI ≤ 450 @ 4" Thickness + 1.8 pcf	QAI Test Report RJ0031-01A dated 2/11/2009	Staycell® 275-1.8 Meets current requirements for flame spread index and smoke developed index of ASTM E84-12.
ASTM E84-08 Staycell® 275-2.0	FSI ≤ 20 SDI ≤ 350 @ 2" Thickness + 2.0 pcf FSI ≤ 20 SDI ≤ 450 @ 4" Thickness + 2.0 pcf	QAI Test Report RJ0031-01A dated 2/11/2009	Staycell® 275-2.0 Meets current requirements for flame spread index and smoke developed index of ASTM E84-12.

Staycell ONE STEP® 255 UL 1715	Meets 15 Minutes Wall Only 4" Thickness	NGC Test Report RCB-1106 dated 11/28/2011	Maximum 4" Thickness on Walls (2.0 pcf density) exposed without a thermal barrier.
Staycell ONE STEP® 255 UL 1715	Meets 15 Minutes Roofs and Ceilings Only 8" Thickness	NGC Test Report RCB-1105 dated 11/28/2011	Maximum 8" Thickness on Roofs and Ceilings (2.0 pcf density) exposed without a thermal barrier.
Staycell® 265 Hybrid System UL 1715	Meets 15 Minutes Wall Only 5" Thickness	NGC Test Report RCB-1104 dated 9/12/2011	Maximum 4" Thickness Staycell® 265 base layer covered with 1" nominal thickness Staycell ONE STEP® 255 as the exposed surface on walls (2.0 pcf density) without a thermal barrier.
Staycell® 265 Hybrid System UL 1715	Meets 15 Minutes Roofs and Ceilings Only 8 ½" Thickness	NGC Test Report RCB-1103 dated 9/12/2011	Maximum 8" Thickness Staycell® 265 base layer covered with ½" nominal thickness Staycell ONE STEP® 255 as the exposed surface on roofs and ceilings (2.0 pcf density) without a thermal barrier.
Staycell® 275 Hybrid System UL 1715	Meets 15 Minutes Wall Only 5" Thickness	NGC Test Report RCB-1201 dated 9/21/2012	Maximum 4" Thickness Staycell® 275-1.8 or Staycell® 275-2.0 base layer covered with 1 inch nominal thickness Staycell ONE STEP® 255 as the exposed surface on walls (2.0 pcf density) without a thermal barrier.
Staycell® 275 Hybrid System UL 1715	Meets 15 Minutes Roofs and Ceilings Only 8 ½" Thickness	NGC Test Report RCB-1202 dated 9/21/2012	Maximum 8" Thickness Staycell® 275-1.8 or Staycell® 275-2.0 base layer covered with ½" nominal thickness Staycell ONE STEP® 255 as the exposed surface on roofs and ceilings (2.0 pcf density) without a thermal barrier.

6. CONCLUSION:

Products were found to comply with applicable requirements and are acceptable for listing.

Follow up inspections by QAI are conducted at Preferred Solutions, Inc. facility by QAI.

Issued :
By



Matt Lansdowne, EIT, M.Sc.
Business Manager – Building
Products

Reviewed
By



Chris Bowness, P.Eng.
Director of Engineering

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