




Date: 2018-03-15

CERTIFICATE OF COMPLIANCE

This certificate of compliance validates the following			
TEST REPORT NUMBER <small>'Assessment Reports' are not acceptable</small>	R38778-20170601 R38778-20180306 R39181-20180206	CERTIFICATE NUMBER	FWFX.R39181 FWFM.R38971 BLBT.R39181
DATE OF ISSUE	2017-06-01 2018-03-06 2018-02-06	DATE OF ISSUE	2017-06-22 2018-03-08 2018-02-20
DATE OF EXPIRY	Refer our website: www.ul.com and type in the UL FILE NUMBER.	DATE OF EXPIRY	Refer our website: www.ul.com and type in the UL FILE NUMBER.
Manufacturer details			
NAME OF FACTORY/ MANUFACTURER	GREEN PRODUCTS INDUSTRIES	NAME OF THE BRAND	Smartwall Panel
FACTORY ADDRESS / REGION <small>(STREET / TOWN / CITY / COUNTRY)</small>	P.O BOX 10266, FACTORY BUILDING NO 1923 ROAD 5146, BLOCK 951 ASKAR BAHRAIN	MODEL / NO	Rigid, polyisocyanurate foam core insulation encapsulated within light weight autoclaved aerated concrete (AAC) facer boards, designated Smartwall Panel , for use in System No. EWS0034 .
WEBSITE	www.pgpihb.com	LOGO ON THE PRODUCT	 <small>The best a building can get</small>
TEL	+973 77377707	EMAIL	john@gpihb.com



Product Details From Test Report		Reference Test Report page NO
<p>DESCRIPTION OF THE PRODUCT (TECHNICAL DETAILS FROM TEST REPORT, SUCH AS ACTUAL FIRE RATINGS/DIMENSIONS/THICKNESS/ SENSITIVITY ETC)</p>	<p>Exterior Wall System Components:</p> <p>Rigid, polyisocyanurate foam core insulation encapsulated within light weight autoclaved aerated concrete (AAC) facer boards, designated Smartwall Panel.</p> <p>Exterior Wall System:</p> <p>System No. EWS0034</p>	<p>Report No. R38778-20170601</p> <p>Report No. R38778-20180306</p> <p>Report No. R39181-20180206</p>
<p>TEST STANDARD (SUCH AS ASTM/BS EN/ DN ETC)</p>	<p>A SI/NFPA 285, "Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components"</p> <p>ANSI/NFPA 268, "Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source"</p> <p>ANSI/UL 723, "Test for Surface Burning Characteristics of Building Materials"</p>	<p>Report No. R38778-20170601</p> <p>Report No. R38778-20180306</p> <p>Report No. R39181-20180206</p>
<p>TEST DESCRIPTION</p>	<p>ANSI/NFPA 285 is used to investigate the fire-propagation characteristics of exterior non-load-bearing wall assemblies and panels used as components of curtain wall assemblies that are constructed using combustible materials or that incorporate combustible components within the wall assemblies as follows:</p> <ol style="list-style-type: none"> 1. The ability of the wall assembly to resist flame propagation over the exterior face of the wall assembly, 2. The ability of the wall assembly to resist vertical flame propagation within the combustible core or within other combustible components from one story to the next, 3. The ability of the wall assembly to resist vertical flame propagation over the interior surface of the wall assembly from one story to the next, and 4. The ability of the wall assembly to resist lateral flame propagation from the compartment of fire origin to adjacent compartments or spaces. <p>ANSI/NFPA 268, is the fire test response standard describes a method for determining the propensity of ignition of exterior wall assemblies from exposure to 12.5 kW/m² (1.10 Btu/ft²-sec) radiant heat in the presence of a pilot ignition source.</p>	<p>R Report No. R38778-20170601</p> <p>Report No. R38778-20180306</p> <p>Report No. R39181-20180206</p>



ANSI/UL 723, is the method of test for surface burning characteristics of building materials is applicable to any type of building material that, by its own structural quality or the manner in which it is applied, is capable of supporting itself in position or being supported in the test furnace to a thickness comparable to its intended use.



SPECIFICATION OF TEST SPECIMEN	The samples used for testing and evaluation were considered representative of the submitted products. Please see pages 13-21 for system specifications.	Report No. R38778-20170601 Report No. R38778-20180306 Report No. R39181-20180206
TEST RESULT (SUCH AS PASSED CRITERIA___/ COMPLIED TO___/ DURATION___/OBSERVATION___/ETC)	Pass – Only those products bearing the UL Mark should be considered to be Certified and covered under UL’s Follow-Up Service	Report No. R38778-20170601 Report No. R38778-20180306 Report No. R39181-20180206



R39181-20180206

<p>PRODUCT APPLICATION GUIDELINE (END USE) (CLEARLY STATE THE END USE WITH SPECIFIC APPLICATION, SUCH AS EXACT FIRE RATING/TO BE INSTALLED IN ___/TO BE INSTALLED AT ___/TO BE CONNECTED WITH ___/TO BE INSTALLED WITH ___ ETC ALONG WITH ANY WARNINGS SUCH AS NOT TO BE USED IN ___/NOT TO BE INSTALLED AT ___/ NOT TO BE INSTALLED WITH ___ ETC.</p>	<p>Exterior Wall System Components (FWFX): This category covers components for exterior wall systems, such as air barriers, air-barrier systems, water-resistive barriers, insulation, substrates, etc., designated for use in specific assemblies covered under Exterior Wall Systems (FWFO). Information concerning the exterior wall assembly details is described in the individual systems. Air barriers are installed for the purpose of controlling unintended movement of air into and out of a building envelope. Water-resistive barriers are installed for the purpose of resisting bulk water penetration and wind-driven rain that penetrates the exterior cladding from intruding into the wall assembly.</p> <p>Exterior non-load-bearing wall assemblies incorporating these components are investigated to ANSI/NFPA 285, "Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components," as required by the "International Building Code," or ANSI/NFPA 5000, "Building Construction and Safety Code."</p> <p>These individual components are not intended to be interchanged between assemblies, but rather are designated for use in a specific design in order that the performance of the system may be achieved. Consequently, the substitution or elimination of components required in a system should not be made unless specifically permitted in the individual system or in these general guidelines.</p> <p>The materials are installed in accordance with details that directly relate to the established ratings. These components are additionally intended to be installed in accordance with the manufacturer's instructions provided with the material.</p> <p>Authorities Having Jurisdiction should be consulted before installation and use of these components.</p> <p>Exterior Wall Systems (FWFO): The systems covered under this category apply to assemblies in their entirety. The illustrated designs reflect the precise dimensions and condition of the sample assembly which has been subjected to the fire-response test. A construction must duplicate the illustrated design and the details included in the</p>	<p>Report No. R38778-20170601</p> <p>Report No. R38778-20180306</p> <p>Report No. R39181-20180206</p>
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associated text in order to achieve the anticipated performance, as tested. Individual components are not intended to be interchanged between assemblies, but rather are designated for use in a specific design in order that the performance of the system may be achieved. Consequently, the substitution or elimination of components required in a system should not be made unless specifically permitted in the individual system or in these general guidelines.

Numbered items refer to the descriptive text below each drawing. Individual components of a proprietary nature, or over which it is necessary to exercise control at the manufacturing location, are certified under the Certification and Follow-Up Service of UL. Those materials identified by an "*" in the system description text are eligible to be produced under the Follow-Up Service Program of UL. Information identifying such materials and the certified companies authorized to provide the materials are covered under Exterior Wall System Components (FWFX). Each certified product bears the label or other identification of UL from which it may be determined that a product is suitable for use as a material in a particular assembly or assemblies.

Authorities Having Jurisdiction should be consulted before installation as to the particular requirements covering the installation and use of these systems.

Exterior Wall Coverings Certified as to Ignitibility (FWFM):

This category covers combustible exterior wall coverings and assemblies investigated to ANSI/NFPA 268, "Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source," as required by the "International Building Code" (IBC), ANSI/NFPA 5000, "Building Construction and Safety Code," and other governing Codes of various countries and regions.

ANSI/NFPA 268 is used to investigate the propensity of ignition of an exterior wall covering or assembly where subjected to a minimum radiant heat flux of 12.5 kW/m² (1.10 Btu/ft²-sec) during a 20-minute test period. This test method is not intended to investigate the fire resistance of the wall system, nor the effect of fires originating within the building or within the exterior wall system.

Where assemblies are covered under this category, they are complete assemblies as detailed in the individual certifications. Individual components are not intended to be interchanged



between assemblies, but rather are designated for use in a specific assembly in order that the performance of the overall system may be achieved. Consequently, the substitution or elimination of components required should not be made unless specifically permitted in the individual assembly or in these general guidelines. Individual components of a proprietary nature, or over which it is necessary to exercise control at the manufacturing location, are certified under the Certification and Follow-Up Service of UL. Those materials identified by an "*" in the description text are eligible to be produced under the Follow-Up Service Program of UL. Each certified product bears the label or other identification of UL from which it may be determined that a product is suitable for use as a material in a particular assembly or assemblies. The order of components shown in the individual certifications is typically from interior to exterior.

It should be noted that the IBC, ANSI/NFPA 5000 and other regulatory Codes provide specific details concerning coverings that are exempted from being tested to ANSI/NFPA 268.

Authorities Having Jurisdiction should be consulted before installation as to the particular requirements covering the installation and use of these systems.

Building Units (BLBT):

This category covers building units, consisting of proprietary mixes of organic and/or inorganic materials formed into panels, blocks, boards, planks, slabs, or sheets fabricated into various sizes, thicknesses and shapes, certified as to surface-burning characteristics.

Some building units are provided with facings or are composites of several materials which may affect the contribution of combustibles under fire conditions. This effect is determined by testing the sample with a longitudinal butt joint, constructed by slitting the facing or by using a factory or field joint (if applicable).

For building units consisting of an interior core material faced on both surfaces, the certification of the product includes the surface-burning characteristics of the core material in addition to the surface-burning characteristics of the finished product.

The certifications are confined to the materials themselves and do not pertain to the structures in which the materials may be



**Building & Life Safety
Technologies**

Northbrook, IL US

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دولة الامارات العربية المتحدة
وزارة الداخلية
لقيادة العامة للدفاع المدني
لجنة اعتماد المختبرات العالمية
بيوت الخبرة ومعاهد التدريب

	<p>installed.</p> <p>The insulating, acoustical, structural, toxicity of the products of combustion, and other properties have not been investigated.</p> <p>Authorities Having Jurisdiction should be consulted before installation.</p>	
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Laboratory and Certification body details

NAME OF CERTIFICATION BODY	UL LLC	NAME OF TEST FACILITY	<p>1. UL LLC Facility</p> <p>2. UL WTDP: Thomas Bell-Wright International Consultants</p> <p>3. UL WTDP: Southwest Research Institute</p>
CERTIFICATION BODY ADDRESS / REGION <small>(STREET / TOWN / CITY / COUNTRY)</small>	333 Pfingsten Road Northbrook, IL 60062 USA	TEST FACILITY ADDRESS / REGION <small>(STREET / TOWN / CITY / COUNTRY)</small>	<p>1. 333 Pfingsten Road, Northbrook, IL, USA</p> <p>2. Corner of 46th and 47th Streets, Jebel Ali Industrial Area 1, Dubai, UAE</p> <p>3. 6220 Culebra Road San Antonio, Texas, USA</p>
WEBSITE	www.ul.com	WEBSITE	<p>1. www.ul.com</p> <p>2. www.bell-wright.com</p> <p>3. www.swri.org www.fire.swri.org</p>
TEL	+1-877-854-3577	TEL	<p>1. +1-877-854-3577</p> <p>2. +971 4 821-5777</p> <p>3. +1-220-684-5111</p>
EMAIL	Firesafety@ul.com	EMAIL	<p>1. FireandSecurity@ul.com</p> <p>2. fire@bell-wright.com</p> <p>3. Testing: karen.carpenter@swri.org Listing and Labeling: tim.koebke@swri.org</p>
ACCREDITED BY <small>(NAME OF ACCREDITATION BODY WHICH ISSUED ACCREDITATION TO THE CERTIFICATION BODY, ALONG WITH WEBSITE)</small>	American National Standards Institute (ANSI) as a product certification body	ACCREDITED BY <small>(NAME OF ACCREDITATION BODY WHICH ISSUED ACCREDITATION TO THE LABORATORY, ALONG WITH WEBSITE)</small>	International Accreditation Services (IAS) www.iasonline.org



	ansi.org		
AS PER (STANDARD TO WHICH THE CERTIFICATION BODY IS ACCREDITED TO)	ISO/IEC 17065	AS PER (STANDARD TO WHICH YOUR ORGANIZATION IS ACCREDITED TO)	ISO 17025
VALIDITY (EXPIRY DATE OF CERTIFICATION BODY ACCREDITATION)	Active as of date of issuance of this certificate	VALIDITY (EXPIRY DATE OF LABORATORY ACCREDITATION)	Active as of date of issuance of this certificate
REFERENCE NUMBER: (CERTIFICATION BODY ACCREDITATION REFERENCE NUMBER TO VERIFY ON THE ACCREDITOR'S WEBSITE)	Accreditation ID #0198	REFERENCE NUMBER: (THE LABORATORY ACCREDITATION REFERENCE NUMBER TO VERIFY ON THE ACCREDITOR'S WEBSITE)	Accreditation ID# TL-157
CERTIFICATION MARK			



(ENDORSEMENT) TO BE SIGNED BY MANUFACTURER			
NAME OF MANUFACTURER'S SIGNATORY	John Varghese	SIGNATURE	
EMAIL / TEL	john@gpibh.com +973 33107303	FACTORY OFFICIAL SEAL	
NOTES: I Undertake that all data and information provided are genuine and accurate			

(ENDORSEMENT) TO BE SIGNED BY CERTIFICATION BODY			
NAME OF CERTIFICATION BODY SIGNATORY	Theresa Nemeth	SIGNATURE	
EMAIL / TEL	Theresa.Nemeth@ul.com 1-847-664-1811	CERTIFICATION BODY OFFICIAL SEAL	
NOTES: I Undertake that all data and information provided are genuine and accurate			

ATTACHMENTS:

- COPY OF 'CERTIFICATE OF COMPLIANCE' ISSUED BY CERTIFICATION BODY (OLD OR NEW)



FWFX.R39181
Exterior Wall System Components

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Exterior Wall System Components

[See General Information for Exterior Wall System Components](#)

GREEN PRODUCTS INDUSTRIES

R39181

P.O BOX 10266, FACTORY BUILDING NO 1923 ROAD 5146, BLOCK 951
ASKAR, BAHRAIN

Rigid, polyisocyanurate foam core insulation encapsulated within light weight autoclaved aerated concrete (AAC) facer boards, designated Smartwall Panel, for use in System No. [EWS0034](#).

[Last Updated](#) on 2017-06-22



BLBT.R39181
Building Units

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Building Units

[See General Information for Building Units](#)

GREEN PRODUCTS INDUSTRIES

R39181

P.O BOX 10266, FACTORY BUILDING NO 1923 ROAD 5146, BLOCK 951
ASKAR, BAHRAIN

Polyisocyanurate foam injected between two autoclaved aerated concrete boards.

Smartwall Panel

	Core Material	Smartwall Panel
Flame spread	TBD	0
Smoke developed	TBD	0

[Last Updated](#) on 2018-02-20



FWFM.R38971
Exterior Wall Coverings Certified as to Ignitability

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Exterior Wall Coverings Certified as to Ignitability

[See General Information for Exterior Wall Coverings Certified as to Ignitability](#)

HENKEL POLYBIT INDUSTRIES LIMITED
P O BOX 293, RAK ROAD,
UMM AL QUWAIN, UNITED ARAB EMIRATES

R38971

Exterior Insulation and Finish Systems (EIFS)

1. **Exterior Gypsum Board*** — Min 5/8 in. (15 mm) thick, paper faced or glass mat faced boards.

See Gypsum Board (CKNX) Category for names of Classified Companies.

2. **Insulation** — One of the following:

A. **Mineral Wool Insulation*** — Minimum thickness 2-3/8 in. (60 mm), and minimum density 8 lb/ft³ (128 kg/m³). 0 flame spread index in accordance with UL723 Classification.

See Batts and Blankets (BKNV) Category for names of Classified Companies.

B. **Exterior Rigid Panel Insulation*** — Maximum 1-15/16 in. (50 mm) thick exterior insulation panel, with minimum density 20 lb/ft³ (320 kg/m³) density.

GREEN PRODUCTS INDUSTRIES — Smartwall Panel

C. **Exterior Foam Plastic Insulation*** — Maximum 2-15/16 in. (75 mm) rigid, thermoset phenolic insulation with maximum 2.81 lb/ft³ (45 kg/m³) density.

KINGSPAN INSULATION LLC — Kingspan Kooltherm® K5

3. **Adhesive Mortar*** — Nominal 5/16 in. (8 mm) thick layer applied on backside of insulation boards and adhered to exterior wall per the manufacturer's installation instructions.

HENKEL POLYBIT INDUSTRIES LIMITED — Ceresit CT-85 Adhesive and Reinforcing Mortar

4. **Fasteners** — Minimum two (2) No. 10 by 4 in. (104 mm) long steel self-tapping screw with 1-9/16 in. (40 mm) diameter steel washer, per insulation board.

5. **Reinforcement Mortar*** — Nominal 1/8 in. (3 mm) thick layer applied over exterior surface of insulation per the manufacturer's installation instructions.

HENKEL POLYBIT INDUSTRIES LIMITED — Ceresit CT-85 Adhesive and Reinforcing Mortar

6. **Fiberglass Reinforced Mesh (High Impact)** — (Required for use with Exterior Insulation A, Optional for use with Exterior Insulations B and C) Nominal 9.7 oz/ft² (330 g/m²) by 39 in. (1 m) wide Henkel Polybit Industries Limited "Ceresit CT-327", embedded within reinforcement mortar mixture (Item 5).

7. **Reinforcement Mortar*** — (Required if Item 6 is used in wall assembly) Nominal 1/8 in. (3 mm) thick layer applied over fiberglass reinforced mesh (Item 6).

HENKEL POLYBIT INDUSTRIES LIMITED — Ceresit CT-85 Adhesive and Reinforcing Mortar

8. **Fiberglass Reinforced Mesh** — Nominal 4.7 oz/yd² (160 g/m²) by 39 in. (1 m) wide Henkel Polybit Industries Limited "Ceresit CT-325", embedded within reinforcement mortar mixture (Item 5 or 7).

9. **Priming Paint*** — Minimum 0.23 mm wet thickness applied over the exterior wall per the manufacturer's specifications.

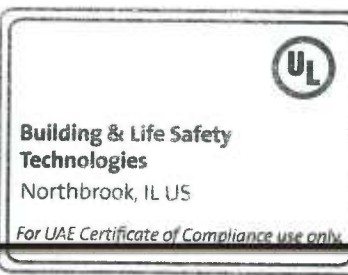
HENKEL POLYBIT INDUSTRIES LIMITED — Ceresit CT-16 Priming Paint

10. **Acrylic Plaster*** — Minimum 1.36 mm wet thickness applied over the exterior wall per the manufacturer's specifications.

HENKEL POLYBIT INDUSTRIES LIMITED — Ceresit CT-60 Acrylic Plaster

* Indicates such products shall bear the UL Certification Mark.

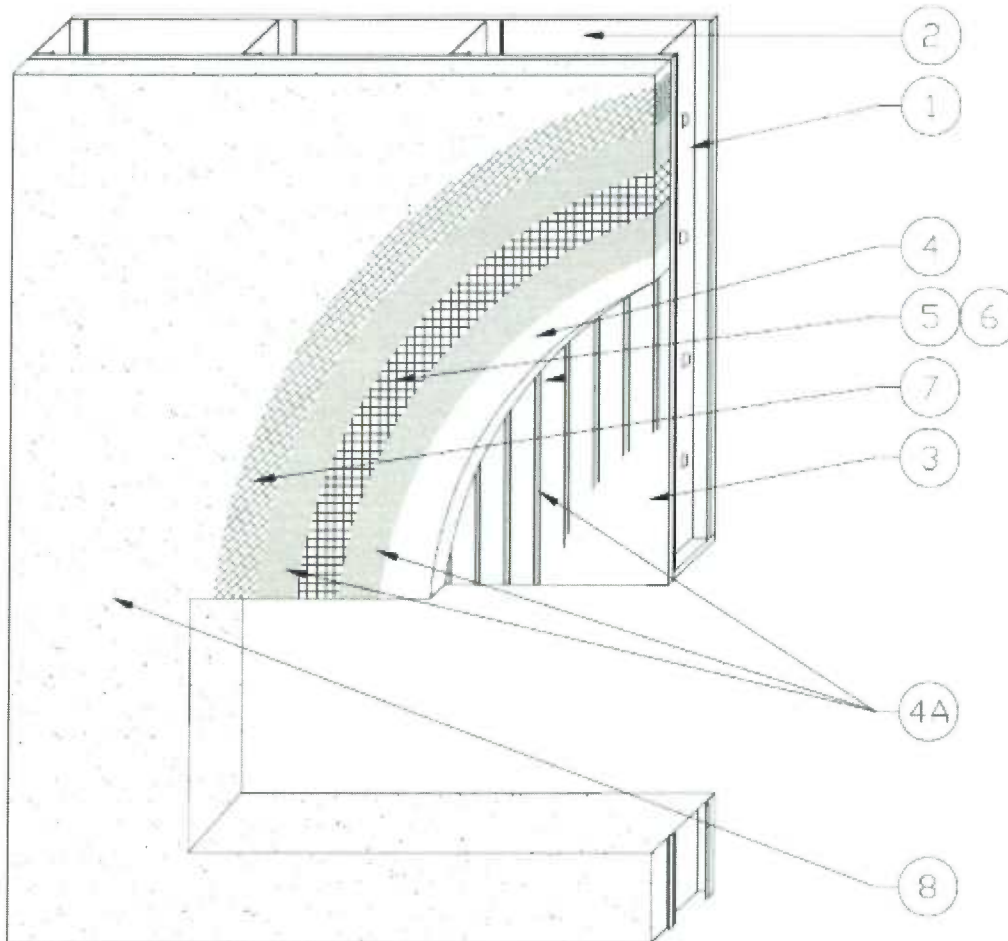
[Last Updated](#) on 2018-03-08



System No. EWS0034

June 02, 2017

Exterior Wall System



1. Steel Studs — Min 3-5/8 in. (92 mm) deep, formed of min 20 ga. galv steel spaced max 16 in. (406 mm) OC.

1A. Alternate Base Walls — (Not Shown) — Cast concrete walls or concrete masonry units (CMU) concrete walls may be used in lieu of Items 1 through 3.

2. Interior Gypsum Board (CKNX)* — Min 5/8 in. (15 mm) thick, 4 ft. (1.2 m) wide, attached to steel studs with 1-3/8 in. (35 mm) long, Type S steel screws spaced max 8 in. (203 mm) OC. Joints covered with paper tape and joint compound. Screw heads covered with joint compound.

See **Gypsum Board (CKNX)** Category for names of Classified Companies and Products.



3. Exterior Gypsum Board (CKNX)* — Min 5/8 in. (15 mm) thick, paper faced or glass mat faced, attached to steel studs with 1-3/8 in. (35 mm) long, Type S steel screws spaced max 8 in. (203 mm) OC.

See **Gypsum Board (CKNX)** Category for names of Classified Companies and Products.

4. Exterior Wall System Component (FWFX)* — Maximum 1-15/16 in. (50 mm), and minimum density 20 lb/ft³ (332 kg/m³) density, minimum 47-1/4 in. (1200 mm) width by 23-5/8 in. (600 mm) length ACC panel boards injected with rigid polyisocyanurate core material. Panels secured over exterior gypsum board with adhesive/reinforcement mortar (Item 4A), applied to the back face of insulation panel board, notched with a 5/16 in. (8 mm) trowel to create a running ribbon pattern. Insulation panels are adhered to the wall by applying firm even pressure until the weight of the board is supported by the adhesive/reinforcement mortar mixture. The insulation panel is additionally fastened with minimum two (2) No. 10 by 4 in. (104 mm) long steel self-tapping screw with 1-9/16 in. (40 mm) diameter steel washer, per board.

GREEN PRODUCTS INDUSTRIES — Smartwall Panel

4A. Exterior Wall System Component (FWFX) — Adhesive and Reinforcement Mortar* — Adhesive and Reinforcement Mortar product mixed with water per the ratio in the manufacturer's installation instructions. Adhesive and Reinforcement Mortar is applied to the backside of all insulation boards (Item 4) with 5/16 in. (8 mm) trowel. The mixture is also applied over fasteners, joints and the exterior surface of the insulation boards (Item 4) with a flat trowel to embed the fiberglass reinforcement mesh layers (Items 5 and 6).

HENKEL POLYBIT INDUSTRIES LIMITED — Ceresit CT-85

5. Fiberglass Reinforced Mesh — Optional — Nominal 9.7 oz/ft² (330 g/m²) by 39 in. (1 m) wide fiberglass reinforced mesh embedded within a nominal 1/8 in. (3 mm) thick layer of adhesive/reinforcement mortar mixture (Item 4A) and applied over the insulation boards (Item 4) with a flat trowel. Fiberglass extends minimum 66 in. (1675 mm) above any opening with no vertical overlaps. The fiberglass mesh does not wrap back to cover the entire return of any opening and edges in the exterior wall.

HENKEL POLYBIT INDUSTRIES LIMITED — Ceresit CT-327

6. Fiberglass Reinforced Mesh — Nominal 4.7 oz/yd² (160 g/m²) by 39 in. (1 m) wide fiberglass reinforced mesh embedded within a nominal 1/8 in. (3 mm) thick layer of adhesive/reinforcement mortar mixture (Item 4A) and applied over reinforced



insulation boards (Item 4 & 5) with a flat trowel. Embedded fiberglass mesh is applied to entire exterior face of the wall assembly with minimum 2 in. (51 mm) vertical overlap. The fiberglass mesh wraps back to cover the entire return of any opening and edges in the exterior wall.

HENKEL POLYBIT INDUSTRIES LIMITED — Ceresit CT-325

7. Exterior Wall Component (FWFX)* — Priming Paint — Liquid priming paint applied with roller over Items 4 through 6 after allowing them to cure per the manufacturer's specifications. Liquid priming paint to be applied to exterior wall at a minimum 0.23 mm wet thickness.

HENKEL POLYBIT INDUSTRIES LIMITED — Ceresit CT-16

8. Exterior Wall Component (FWFX)* — Acrylic Plaster — Acrylic based textured finish coat applied by flat trowel over Items 4 through 7 after allowing them to cure per the manufacturer's specifications. Acrylic textured finish coat to be applied to exterior wall at a minimum 1.12 mm wet thickness. Acrylic textured finish covers all surfaces of exterior wall including returns of openings and edges.

HENKEL POLYBIT INDUSTRIES LIMITED — Ceresit CT-60

9. Mineral Wool — (Not Shown) — Minimum 8 lb/ft³ (128 kg/m³), 8 in. (203 mm) thick mineral batt insulation installed within the stud cavity at floor line locations.

*** Indicates such products shall bear the UL Certification or Classification Mark.**