



LISTING INFORMATION OF  
**Unience Co. Ltd. - ALFREX**  
SPEC ID: 36858

Alfrex, LLC  
430 Satellite Blvd. NW  
Suite 101  
Suwanee, GA 30024  
United States

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## LISTING INFORMATION

ALFREX is an Aluminum Composite Panel that has a surfaced finish on the aluminum skin.

### RATINGS

| Standard                                   | Rating  | Design Number    |
|--|---|------------------|
| ASTM E84 (4mm panel exterior side exposed) | Flame Spread Index:0<br>Smoke Developed Index:0               | NA               |
| ASTM E84 (Core Exposed)                    | Flame Spread Index:20<br>Smoke Developed Index:55             | NA               |
| NFPA 285                                   | Met Criteria of Standard                                      | UCL/MCMWP 30-01  |
| ASTM E119                                  | Fire Resistance Rating: 2hr                                   | UCL/MCMWP 120-01 |
| CAN/ULC S102                               | Flame Spread Index: 0<br>Smoke Developed Classification:<br>5 | NA               |
| CAN/ULC S134                               | Met Criteria of Standard                                      | UCL/MCMWP 25-01  |

| Attribute           | Value                      |
|---------------------|----------------------------|
| Criteria            | CAN / ULC S102 (2010)      |
| Criteria            | NFPA 285 (2012)            |
| Criteria            | ASTM E84 (2013a)           |
| Criteria            | ASTM E119 (2012a)          |
| Criteria            | CAN / ULC S134 (2013)      |
| CSI Code            | 07 42 13 Metal Wall Panels |
| Intertek Services   | Certification              |
| Listed or Inspected | LISTED                     |

Listing Section BUILDING MATERIALS WITH SURFACE BURNING CHARACTERISTICS  
Listing Section WALL ASSEMBLIES  
Spec ID 36858

## DRAWING INDEX

Certificate of Compliance - Unience Co. Ltd. - ALFREX

Test Report Summary

UCL/MCMWP 120-01

UCL/MCMWP 25-01

UCL/MCMWP 30-01

# CERTIFICATE OF COMPLIANCE - UNIENCE CO. LTD. - ALFREX



## Certificate of Compliance



This is a certificate of compliance to certify that the bearer has successfully completed the requirements of the above scheme which include the testing of products, the initial assessment, and are subject to continuing annual assessments of their compliance and testing of samples of products taken from production (as applicable to the scheme) and has been registered within the scheme for the products detailed.

You have been awarded:

### Intertek ETL Mark for Wall Assemblies

CAN / ULC S102 (2010), NFPA 285 (2012), ASTM E84 (2013a), ASTM E119 (2012a), CAN / ULC S134 (2013)

Certificate number: **WHI18 – 26206601**

#### Organization:

**Unience Co., Ltd.**  
 46, Gwahaksaneop 1-Ro  
 Oksan -Myeon, Heungdeok-Gu  
 Cheongju-Si, Chungcheongbuk-Do , 28122  
 South Korea

#### Product: Unience Co. Ltd. - ALFREX SPEC ID 36858

ALFREX is an Aluminum Composite Panel that has a surfaced finish on the aluminum skin.

#### RATINGS

| Standard                                   | Rating   | Design Number    |
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| ASTM E84 (Core Exposed)                    | Flame Spread Index:20<br>Smoke Developed Index:55          | NA               |
| NFPA 285                                   | Met Criteria of Standard                                   | UCL/MCMWP 30-01  |
| ASTM E119                                  | Fire Resistance Rating: 2hr                                | UCL/MCMWP 120-01 |
| CAN/ULC S102                               | Flame Spread Index: 0<br>Smoke Developed Classification: 5 | NA               |
| CAN/ULC S134                               | Met Criteria of Standard                                   | UCL/MCMWP 25-01  |

**Certification body:** Intertek Testing Services NA, Inc.

**Initial registration:** March 15<sup>th</sup>, 2018

**Date of expiry:** March 15<sup>th</sup>, 2023

**Issue status:** 2

|                                    |           |           |
|------------------------------------|-----------|-----------|
| Charles Meyers                     |           | 3/15/2018 |
| Certification Coordination Manager |           |           |
| Name                               | Signature | Date      |

www.intertek.com

Registered address:  
 Intertek Testing Services NA, Inc. 545 E. Algonquin Rd. Arlington Heights, IL 60005 USA

The certificate and schedule are held in force by regular annual surveillance visits by Intertek Testing Services NA, Inc. and the reader or user should contact Intertek to validate its status. This certificate remains the property of Intertek Testing Services NA, Inc. and must be returned to them on demand. This Certificate is for the exclusive use of Intertek's Client and is provided pursuant to the Certification agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this certificate. Only the Client is authorized to permit copying or distribution of this certificate and then only in its entirety. Use of Intertek's Certification mark is restricted to the conditions laid out in the agreement. Any further use of the Intertek name for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. Initial Factory Assessments and Follow up Services are for the purpose of assuring appropriate usage of the Certification mark in accordance with the agreement, they are not for the purposes of production quality control and do not relieve the Client of their obligations in this respect.

# TEST REPORT SUMMARY



## Intertek Testing Services NA, Inc

545 E. Algonquin Rd., Arlington Heights, IL 60005 USA  
 Phone: 847-439-5667 Fax: 866-262-2753  
 Email: [bpcerthelpdesk@intertek.com](mailto:bpcerthelpdesk@intertek.com) Web: <http://www.intertek.com>

### TEST REPORT SUMMARY

This Test Report Summary Validates the Following

|                    |  |
|--------------------|--|
| TEST REPORT NUMBER | 101530130SAT-007,<br>101530130SAT-009,<br>101530130SAT-010A, 101530130SAT-010B,<br>101530130SAT-020A and 101531030SAT-020B |
| DATE OF ISSUE      | Multiple Reports (April, June and August of 2014)  |
| DATE OF EXPIRY     | None   |

|   |  |                         |        |
|---|--|-------------------------|--------|
| NAME OF FACTORY/<br>MANUFACTURER:<br>FACTORY ADDRESS/<br>REGION | Intraco Corporation  | NAME OF THE<br>BRAND:   | ALFREX |
|   | Unience Co. Ltd.<br>46, Gwahaksaneop1-ro,<br>Oksan-myeon, Cheong-<br>won-gun,<br>Chungcheongbuk-do,<br>Korea | MODEL NO:               | ALFREX |
|   |  | LOGO ON THE<br>PRODUCT: | NA     |

| DESCRIPTION OF THE PRODUCT:                | Aluminum Composite Panel  |                  |  |  |          |        |               |  |   |    |                         |   |    |          |                          |                 |           |                             |                  |
|--|---|------------------|--|--|----------|--------|---------------|--|---|----|-------------------------|---|----|----------|--------------------------|-----------------|-----------|-----------------------------|------------------|
| TEST STANDARD:                             | ASTM E84, NFPA 285, ASTM E119   |                  |  |  |          |        |               |  |   |    |                         |   |    |          |                          |                 |           |                             |                  |
| TEST DESCRIPTION:                          | Standard Test Method for Surface Burning Characteristics of Building Materials, Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load Bearing Wall Assemblies containing Combustible, Components Standard Test Methods for Fire Tests of Building Construction Materials  |                  |  |  |          |        |               |  |   |    |                         |   |    |          |                          |                 |           |                             |                  |
| SPECIFICATION OF TEST SPECIMEN:            | ALFREX is an Aluminum Composite Panel that has a surfaced finish on the aluminum skin.  |                  |  |  |          |        |               |  |   |    |                         |   |    |          |                          |                 |           |                             |                  |
| TEST RESULT:                               | <table border="1"> <thead> <tr> <th colspan="3">RATINGS</th> </tr> <tr> <th>Standard</th> <th>Rating</th> <th>Design Number</th> </tr> </thead> <tbody> <tr> <td>ASTM E84 (4mm panel exterior side exposed)</td> <td>Flame Spread Index:0<br/>Smoke Developed Index:0</td> <td>NA</td> </tr> <tr> <td>ASTM E84 (Core Exposed)</td> <td>Flame Spread Index:20<br/>Smoke Developed Index:55</td> <td>NA</td> </tr> <tr> <td>NFPA 285</td> <td>Met Criteria of Standard</td> <td>ITC/MCMWP 30-01</td> </tr> <tr> <td>ASTM E119</td> <td>Fire Resistance Rating: 2hr</td> <td>ITC/MCMWP 120-01</td> </tr> </tbody> </table> | RATINGS          |  |  | Standard | Rating | Design Number | ASTM E84 (4mm panel exterior side exposed) | Flame Spread Index:0<br>Smoke Developed Index:0 | NA | ASTM E84 (Core Exposed) | Flame Spread Index:20<br>Smoke Developed Index:55 | NA | NFPA 285 | Met Criteria of Standard | ITC/MCMWP 30-01 | ASTM E119 | Fire Resistance Rating: 2hr | ITC/MCMWP 120-01 |
| RATINGS                                    |   |                  |  |  |          |        |               |  |   |    |                         |   |    |          |                          |                 |           |                             |                  |
| Standard                                   | Rating  | Design Number    |  |  |          |        |               |  |   |    |                         |   |    |          |                          |                 |           |                             |                  |
| ASTM E84 (4mm panel exterior side exposed) | Flame Spread Index:0<br>Smoke Developed Index:0   | NA               |  |  |          |        |               |  |   |    |                         |   |    |          |                          |                 |           |                             |                  |
| ASTM E84 (Core Exposed)                    | Flame Spread Index:20<br>Smoke Developed Index:55   | NA               |  |  |          |        |               |  |   |    |                         |   |    |          |                          |                 |           |                             |                  |
| NFPA 285                                   | Met Criteria of Standard  | ITC/MCMWP 30-01  |  |  |          |        |               |  |   |    |                         |   |    |          |                          |                 |           |                             |                  |
| ASTM E119                                  | Fire Resistance Rating: 2hr   | ITC/MCMWP 120-01 |  |  |          |        |               |  |   |    |                         |   |    |          |                          |                 |           |                             |                  |

## TEST REPORT SUMMARY (2 OF 2)



### Intertek Testing Services NA, Inc

545 E. Algonquin Rd., Arlington Heights, IL 60005 USA

Phone: 847-439-5667

Fax: 866-262-2753

Email: [bpcerthelpdesk@intertek.com](mailto:bpcerthelpdesk@intertek.com)

Web: <http://www.intertek.com>

|  |   |
|--|---|
| NAME OF TEST FACILITY:                   | Intertek Testing Services NA, Inc.  |
| TEST FACILITY ADDRESS/REGION:            | 16015 Shady Falls Road, Elmendorf, TX 78112   |
| PRODUCT APPLICATION GUIDELINE (END USE): | Wall cladding requiring flame spread and smoke developed indexes/Listed and Labeled Wall Cladding |

SIGNED BY:



Michael Puls

The above certificate is valid only when used in collaboration with Intertek's approved product listings. To verify the validity of the product, please log into our website [www.intertek.com](http://www.intertek.com) to view the WH mark Directory of Listed Products.

|                   |   |
|-------------------|---|
| ACCREDITED BY:    | International Accreditation Service (IAS): ( <a href="http://iasonline.org">http://iasonline.org</a> )                            |
| AS PER:           | ISO 17025, ISO Guide 65, ISO 17020: Certification Certificate PCA-101, Test Lab Certificate TL-143, Inspection Certificate AA-647 |
| VALIDITY:         | Certificates can be viewed at: <a href="http://iasonline.org">http://iasonline.org</a>  |
| REFERENCE NUMBER: | Certification Certificate PCA-101, Test Lab Certificate TL-143, Inspection Certificate AA-647                                     |

#### THE LIST OF ACCREDITED TESTS (FIRE AND LIFE SAFETY PRODUCTS ONLY)

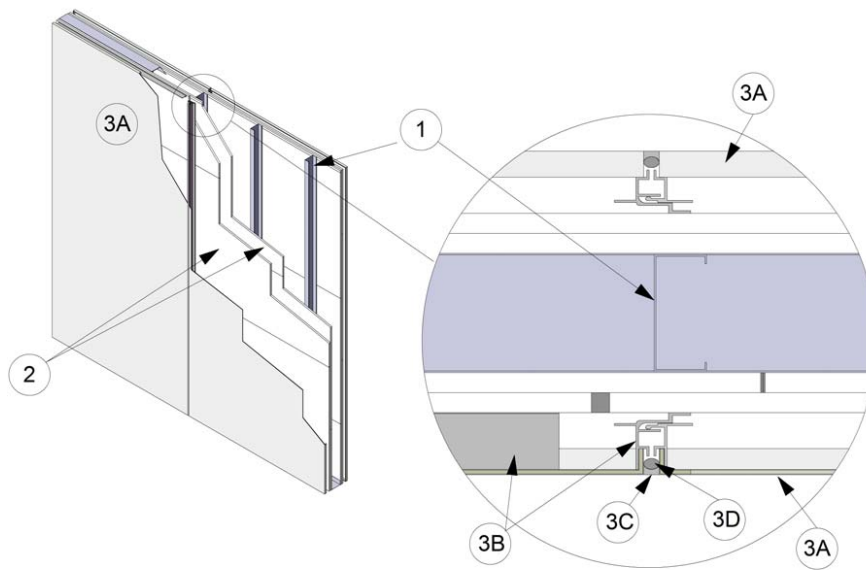
| TEST STANDARD | TITLE   |
|---------------|---|
| ASTM E84      | Standard Test Method for Surface Burning Characteristics of Building Materials  |
| NFPA 285      | Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load Bearing Wall Assemblies containing Combustible Components |
| ASTM E119     | Standard Test Methods for Fire Tests of Building Construction Materials   |

# UCL/MCMWP 120-01

Division 7 – Thermal and Moisture Protection  
 07 42 00 Wall Panels  
 07 42 13.23 Metal Composite Material Wall Panels

Page 1 of 2

Unience Co., Ltd.  
 UCL/MCMWP 120-01  
 Non-Load Bearing Wall Assembly  
 ALFREX  
 ASTM E119 – 2 Hour Fire Resistance  
 Non-Load Bearing



1. **STEEL FRAMING:** Install nominal 2-1/2 in. 25 GA steel studs spaced nominally 24 in. on center (oc) friction fit into 25 GA top and bottom steel tracks. Studs cut to be nominal 1/4 in. shorter than wall height.
2. **GYPSUM BOARD:** Apply two layers of 5/8 in. thick, Type X gypsum board to each side of the steel framing (Item 1) with the long dimension perpendicular to the steel studs. Secure base layer using #6 1-1/4 in. long, Type S screws spaced nominally 16 in. oc. Install face layer with joints offset min. 24 in. from the base layer joints. Secure face layer using #6 1-5/8 in. long, Type S screws spaced nominally 16 in. oc and offset 8 in. from the base layer screws.

A. **JOINT TAPE AND COMPOUND (Not Shown)** – Apply a level 2 finish of vinyl or casein, dry or premixed joint compound applied in two coats to all exposed fastener heads and gypsum board joints. Embed min. 2 in. wide paper, plastic, or fiberglass tape in first layer of compound over joints in gypsum board (Item 3).

3. **CERTIFIED MANUFACTURER:** Unience Co., Ltd.

**CERTIFIED PRODUCT:** Aluminum Composite Panels

**MODEL:** ALFREX 4mm Panel

Date Revised: February 3, 2016  
 Project No. G101530130





## UCL/MCMWP 120-01 (2 OF 2)

**Division 7 – Thermal and Moisture Protection**  
**07 42 00 Wall Panels**  
**07 42 13.23 Metal Composite Material Wall Panels**

Page 2 of 2

**EXTERIOR VENEER:** Install aluminum composite panels using the following elements:

- A. **ALUMINUM COMPOSITE PANELS** – Secure aluminum composite panels to aluminum extrusions (Item 5B) with #12 x 3/4 in. long self-drilling hex-head steel screws 24 in. oc. Where applicable secure aluminum composite panel to aluminum angles (Item 5A).
- B. **ALUMINUM EXTRUSIONS** – Install aluminum extrusion to aluminum composite panels (Item 5A) prior to installation onto wall. Secure aluminum extrusion through the gypsum board (Item 2) into the steel framing (Item 1) using #12 x 3 in. long self-drilling TEK screws.

- C. **BACKER ROD** – Install nominal 7/8 in. diameter foam backer rod compressed into joints between the aluminum composite panels (Item 5B). Install backer rod imbedded into the joint so that a min. 1/4 in. space is remaining between the backer rod and the exterior face of the aluminum composite panels (Item 5B).
- D. **SEALANT** – Install a min. 1/4 in. thick bead of Dow Corning® 795 Silicone Building Sealant into joints between aluminum composite panels (Item 5B) over the backer rod. Sealant installed to be flush with the exterior surface of the aluminum composite panels (Item 5B).

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Date Revised: February 3, 2016  
Project No. G101530130



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# UCL/MCMWP 25-01

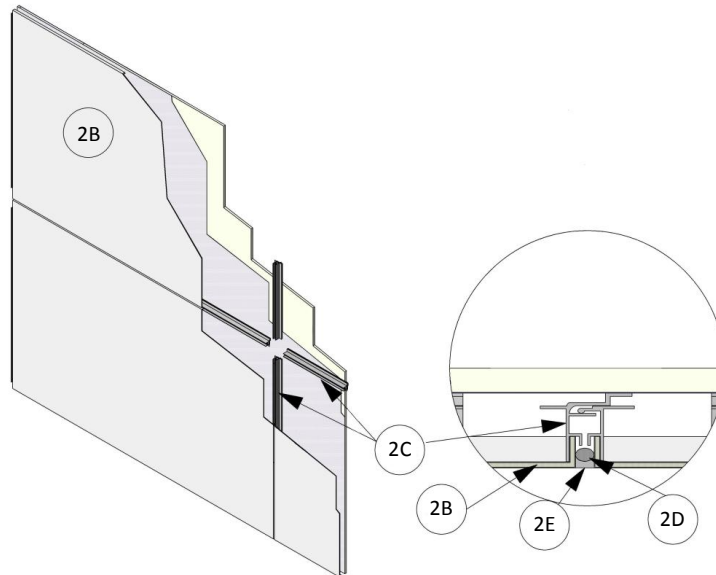
Division 7 – Thermal and Moisture Protection  
 07 42 00 Wall Panels  
 07 42 13.23 Metal Composite Material Wall Panels

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Unience Co., Ltd.  
 Design No. UCL-MCMWP 25-01  
 Exterior Wall Systems  
 ALFREX  
 CAN/ULC S134 (2013) – Meets Conditions of Acceptance

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**1. NON-COMBUSTIBLE WALL ASSEMBLY (Not Shown):** ALFREX ACM Panels (Item 2) are to be installed on non-combustible non-load-bearing wall assemblies as established by the applicable code and criteria.

**2. CERTIFIED MANUFACTURER:** Unience Co., Ltd.

**CERTIFIED PRODUCT:** Aluminum Composite Panels

**CERTIFIED MODEL:** ALFREX 4 mm Panel

**EXTERIOR VENEER:** Install aluminum composite panels using the following elements:

A. **ALUMINUM ANGLES (Not Shown):** Where applicable (such as opening for windows and wall perimeters) install "L" shaped aluminum angle

secured into the supporting construction of Item 1 using approved fasteners and methods.

B. **ALUMINUM COMPOSITE PANELS:** Secure aluminum composite panels to aluminum extrusions (Item 5C) with #12 x 3/4 in. long self-drilling hex-head steel screws min 24 in. on center (oc). Where applicable secure aluminum composite panel to aluminum angles (Item 2A).

C. **ALUMINUM EXTRUSIONS:** Install aluminum extrusion to aluminum composite panels (Item 2B) prior to installation onto wall. Secure aluminum extrusion into the supporting construction of Item 1 using approved fasteners and methods.

Date Issued: December 22, 2016  
 Project No. G102654321



## UCL/MCMWP 25-01 (2 OF 2)

**Division 7 – Thermal and Moisture Protection**  
**07 42 00 Wall Panels**  
**07 42 13.23 Metal Composite Material Wall Panels**

Page 2 of 2

D. BACKER ROD: Install nominal 7/8 in. diameter foam backer rod compressed into joints between the aluminum composite panels (Item 2B). Install backer rod imbedded into the joint so that a min 1/4 in. space is remaining between the backer rod and the exterior face of the aluminum composite panels (Item 2B).

E. SEALANT: Install a min 1/4 in. thick bead of Dow Corning® 795 Silicone Building Sealant into joints between aluminum composite panels (Item 2B) over the backer rod. Sealant installed to be flush with the exterior surface of the aluminum composite panels.

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Date Issued: December 22, 2016  
Project No. G102654321



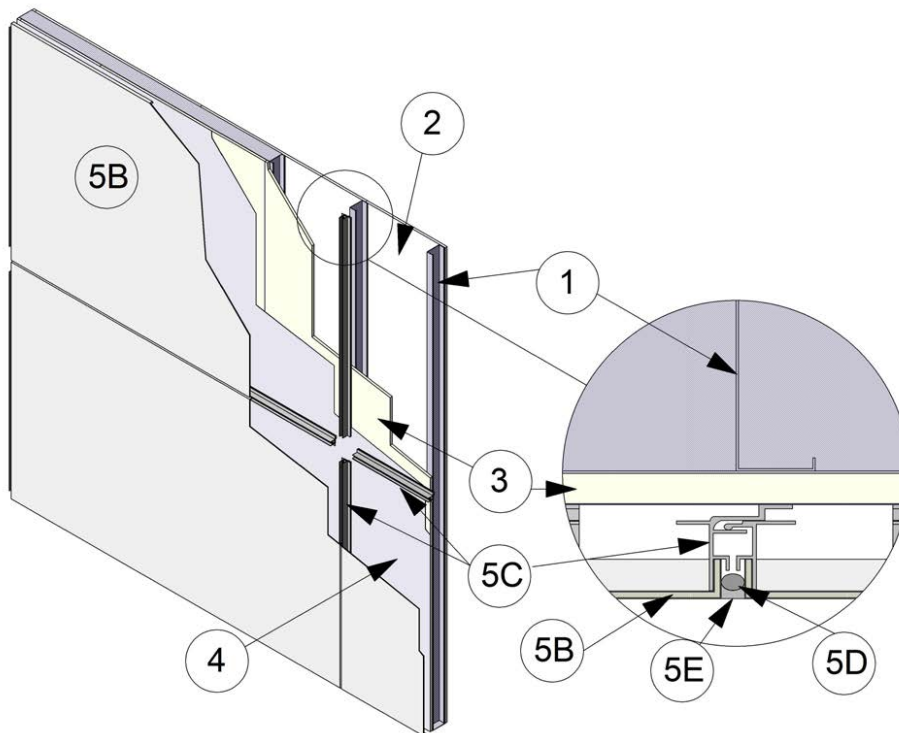
Valued Quality. Delivered.

# UCL/MCMWP 30-01

Division 7 – Thermal and Moisture Protection  
 07 42 00 Wall Panels  
 07 42 13.23 Metal Composite Material Wall Panels

Page 1 of 2

Unience Co., Ltd.  
 UCL/MCMWP 30-01  
 Exterior Wall Systems  
 ALFREX  
 NFPA 285 – Meets Conditions of Acceptance



**1. STEEL FRAMING:** Install nominal 3-5/8 in. 20 GA steel studs spaced nominally 24 in. on center (oc). Attach steel studs to 20 GA top and bottom steel tracks using nominal 7/16 in. long pan-head framing screws attached to front and back of each steel stud. Nominal 1-1/2 in. x 1/2 in., 16 GA lateral bracing installed in the knockouts of the steel studs spaced 48 in. oc vertically up the wall. Nominal 4 in. thick, 4 pound per cubic foot (pcf) density mineral fiber insulation installed at the floor line for firestopping.

**2. INTERIOR GYPSUM:** Apply one layer of 5/8 in. thick, Type X gypsum board to the interior side of the steel framing (Item 2) with the long dimension parallel to the steel studs. Secure using #6 1-1/4 in. long, Type S screws spaced nominally 8 in. oc around the perimeter and 12 in. oc in the field.

**A. JOINT TAPE AND COMPOUND (Not Shown)** – Apply a level 2 finish of vinyl or casein, dry or premixed joint compound applied in two coats to all exposed fastener heads and gypsum board joints.

Date Revised: February 3, 2016  
 Project No. G101530130



## UCL/MCMWP 30-01 (2 OF 2)

**Division 7 – Thermal and Moisture Protection**  
**07 42 00 Wall Panels**  
**07 42 13.23 Metal Composite Material Wall Panels**

Page 2 of 2

Embed min. 2 in. wide paper, plastic, or fiberglass tape in first layer of compound over joints in gypsum board (Item 3).

- 3. EXTERIOR SHEATHING:** Install 5/8 in. thick DensGlass® Gold exterior sheathing to the exterior side of the steel framing (Item 2) with the long dimension perpendicular to the steel studs. Secure using #6 1-1/4 in. long, Type S screws spaced nominally 8 in. oc around the perimeter and 12 in. oc in the field.
- 4. WEATHER BARRIER:** Install a single layer of DuPont™ Tyvek® vapor barrier to the exterior side of the exterior sheathing (Item 3) with min. 6 in. overlaps at the seams and attached with staples spaced 24 in. oc.
- 5. CERTIFIED MANUFACTURER:** Unience Co., Ltd.

**CERTIFIED PRODUCT:** Aluminum Composite Panels

**MODEL:** ALFLEX 4mm Panel

**EXTERIOR VENEER:** Install aluminum composite panels using the following elements:

- A. ALUMINUM ANGLES (Not Shown) –** Where applicable (such as opening for windows and wall perimeters) install "L" shaped aluminum angles secured through the exterior sheathing (Item 3) into the steel framing (Item 1). Secure aluminum composite panels (Item 5B) to aluminum angles using #12 x 3/4 in. long self-drilling screws spaced max. 24 in. oc.

- B. ALUMINUM COMPOSITE PANELS –** Secure aluminum composite panels to aluminum extrusions (Item 5C) with #12 x 3/4 in. long self-drilling hex-head steel screws 24 in. oc. Where applicable secure aluminum composite panel to aluminum angles (Item 5A).

- C. ALUMINUM EXTRUSIONS –** Install aluminum extrusion to aluminum composite panels (Item 5B) prior to installation onto wall. Secure aluminum extrusion through the exterior sheathing (Item 3) into the steel framing (Item 1) using #12 x 1-1/2 in. long self-drilling TEK screws.

- D. BACKER ROD –** Install nominal 7/8 in. diameter foam backer rod compressed into joints between the aluminum composite panels (Item 5B). Install backer rod imbedded into the joint so that a min. 1/4 in. space is remaining between the backer rod and the exterior face of the aluminum composite panels (Item 5B).

- E. SEALANT –** Install a min. 1/4 in. thick bead of Dow Corning® 795 Silicone Building Sealant into joints between aluminum composite panels (Item 5B) over the backer rod. Sealant installed to be flush with the exterior surface of the aluminum composite panels (Item 5B).

- 6. FLASHING (Not Shown):** Where applicable, min. 0.04 in. thick aluminum flashing shall be installed in openings spanning from the interior to the exterior side of the window opening.

Date Revised: February 3, 2016  
Project No. G101530130



Valued Quality. Delivered.