

## Section 07430 | Composite Panels

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### PART 1: GENERAL

#### 1.1 Section Includes

**Specifier Note:** Endurex 300 Series, Endurex 500 Series, Endurex 700 Series. Delete if not required for project.

A. Laminated panels for use as glazing infill or railing-type channel inserts.

**Specifier Note:** Delete any sections below not relevant to this project; add others as required.

A. Section 05400—Cold Formed Metal Framing.

B. Section 06100—Sheathing.

C. Section 07210—Building Insulation.

D. Section 07600—Flashing and Sheet Metal.

E. Section 07920—Joint Sealants.

F. Section 08500—Windows

#### 1.2 Related Sections

**Specifier Note:** Delete references from the list below that are not actually required by the text of the edited section.

A. ASTM International (ASTM):

1. ASTM E84 - Surface Burning Characteristics.

**Specifier Note:** Panel 20 and Envelope 2000 reference standard only. Delete if not required.

2. ASTM D1781 - Climbing Drum Peel for Adhesives.

**Specifier Note:** Delete if not required.

3. ASTM E72 - Strength Tests for Panels for Building Construction.

#### 1.3 References

A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 01300 Submittal Procedures Section.

B. Submit manufacturer's product data, storage, handling and preparation requirements and installation instructions.

C. Samples: Submit selection and verification samples for finishes, colors and textures. Submit 2 samples of each type of panel, trim and fastener

#### 1.4 Submittals

**Specifier Note:** Delete selection samples if colors have already been selected.

D. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors, patterns and textures. Indicate location and dimension of joints and fastener attachment.

E. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.

#### 1.5 Quality Assurance

A. Manufacturer Qualifications: Manufacturer shall have a minimum of ten years experience in the manufacture of composite architectural wall systems.

B. Installer Qualifications: Installer shall be experienced in performing work of this section and be specialized in the installation of similar work required on this project.

C. Pre-Installation Meetings: Conduct pre-installation meetings to verify project requirements, substrate condition, installation instructions and warranty requirements. Field measurements shall be taken prior to completion of manufacturing and cutting.

**Specifier Note:** Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

D. Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

#### 1.6 Delivery, Storage and Handling

A. Lead Time: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.

B. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

C. Storage and Protection: Stack materials on platforms or pallets, covered with suitable ventilated covering. Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

#### 1.7 Project Conditions

A. Maintain environmental conditions (temperature, humidity, and ventilation) recommended by manufacturer. Do not install

products under environmental conditions outside manufacturer's absolute limits.

### 1.8 Warranty

A. Manufacturer's Warranty: Submit, for owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under the Contract Documents.

**Specifier Note: Panel 20, Sinocore, ProCore, GlazeGuard, Envelope 2000. Delete if not required.**

B. Panel Lamination Warranty: Five years commencing on Date of Substantial Completion.

**Specifier Note: Panel 15. Delete if not required.**

C. Finish Warranty:

**Specifier Note: Delete finish warranty not required.**

1. Polyester: Five years.
2. Acrylic Urethane: Five years.
3. Kynar 500®: Twenty years.
4. Kynar 500® Metallic: Twenty years.
5. Anodized: Twenty years.

## PART 2: PRODUCTS

### 2.1 Manufacturers

A. Manufacturer: Nudo. Contact: 1500 Taylor Avenue, Springfield, IL 62703; Telephone: (800) 826-4132, (217) 528-5636; Fax: (217) 528-8722; E-mail: info @nudo.com; website:www.nudo.com.

**Specifier Note: Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

1. Acceptable Alternatives: Panels of similar composition providing manufacturer has a minimum of ten years experience.
2. The materials and products specified in this section establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.
3. No substitution will be considered unless written request for approval has been submitted by the bidder and has been received by the Architect ten days prior to the date for receipt of bids.
4. Each request shall include the name of the materials and a complete description of the proposed material, including test performance and any other information necessary for evaluation.

### 2.1 Exterior Wall Panels and Systems

**Specifier Note: Delete if not required.**

A. Product: Endurex 300 Series Architectural Panels as manufactured by Nudo.

1. Panel Composition:

- a. Face Skin: [.032"] [.040"] [.050"] prefinished textured aluminum painted to match Architect's color selection.
- b. Stabilizer
  1. [Hardboard] [.125"] [.250"]
  2. [Composite] [.120"]
  3. [Polycorrugated] [.158"] [.236"] [.315"] [.394"]
  4. [Fiber Cement] [.125"] [.158"] [.236"] [.315"] [.394"] [.472"]
  5. [Fire-Rated Gypsum] [.625"]
  6. [Plywood] [.250"] [1.125"]

**Specifier Note: Delete back skin not required.**

- c. Back Skin: [.032"] [.040"] [.050"] prefinished textured aluminum painted to match Architect's color selection.

2. Panel Tolerances:

- a. Thickness: 1/32 inch (0.8 mm).
- b. Length and Width: +0, -1/8 inch (1.5 mm).
- c. Squareness: 1/64 inch per lineal foot (1.3 mm/m).

**Specifier Note: Delete attachment system not required.**

3. Attachment System: One-part extruded aluminum moldings.
4. Attachment System: Two-part extruded aluminum moldings.
5. Attachment System: One-part roll formed aluminum moldings.

Specifier Note: Delete if not required.

B. Product: Endurex 500 Series Architectural Panels as manufactured by Nudo.

1. Panel Composition:

a. Face Skin: [.032"] [.040"] [.050"] prefinished textured aluminum painted to match Architect's color selection.

b. Stabilizer

1. [Hardboard] [.125"] [.250"]
2. [Composite] [.120"]
3. [Polycorrugated] [.158"] [.236"] [.315"] [.394"]
4. [Fiber Cement] [.125"] [.158"] [.236"] [.315"] [.394"] [.472"]
5. [Fire-Rated Gypsum] [.625"]
6. [Plywood] [.250"] [1.125"]

Specifier Note: Delete back skin not required.

c. Back Skin: [.032"] [.040"] [.050"] prefinished textured aluminum painted to match Architect's color selection.

2. Panel Tolerances:

a. Thickness: 1/32 inch (0.8 mm).

b. Length and Width: +0, -1/16 inch (1.6 mm).

c. Squareness: 1/64 inch per lineal foot (1.3 mm/m).

3. Attachment System: Two-part extruded aluminum moldings.

4. Attachment System: Two-part extruded aluminum moldings.

5. Attachment System: One-part roll formed aluminum moldings.

Specifier Note: Delete if not required..

C. Product: Endurex 700 Series Architectural Panels as manufactured by Nudo.

1. Panel Composition:

a. Face Skin: [.032"] [.040"] [.050"] prefinished textured aluminum painted to match Architect's color selection.

b. Stabilizer

1. [Hardboard] [.125"] [.250"]
2. [Composite] [.120"]
3. [Polycorrugated] [.158"] [.236"] [.315"] [.394"]
4. [Fiber Cement] [.125"] [.158"] [.236"] [.315"] [.394"] [.472"]
5. [Fire-Rated Gypsum] [.625"]
6. [Plywood] [.250"] [1.125"]

Specifier Note: Delete back skin not required.

c. Back Skin: [.032"] [.040"] [.050"] prefinished textured aluminum painted to match Architect's color selection.

2. Panel Tolerances:

a. Thickness: 1/32 inch (0.8 mm).

b. Length and Width: +0, -1/8 inch (1.5 mm).

c. Squareness: 1/64 inch per lineal foot (1.3 mm/m).

Specifier Note: Delete attachment system not required.

3. Attachment System: One-part extruded aluminum moldings.

4. Attachment System: Two-part extruded aluminum moldings.

## 2.3 Accessories

Specifier Note: Delete if not required.

A. Recommended for use as an infill panel component in window and curtain wall systems. Related material to complete installation as recommended by the manufacturer.

B. Fasteners and moldings as required for panel system's design by system manufacturer. Fasteners shall be coated or stainless steel.

C. Sealants: Protects against moisture intrusion as recommended by the sealant manufacturer. Sealants with a 20 year life are recommended.

## 2.4 Finish

A. Exposed finish:

1. Polyester
2. Kynar 500
3. Kynar 500 Metallic
4. Anodized

## PART 3: EXECUTION

### 3.1 Examination

- A. Verify substrate conditions prior to installation to determine if they have been properly prepared. Verify that site conditions are acceptable for infill or glazing panel systems.
- B. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to installer. Starting work within a particular area will be construed as installer's acceptance of surface conditions.
- C. Maximum deviation from vertical and horizontal alignment of substrate shall be no more than 1/4 inch in 20 feet (1 mm in 1 m).

### 3.2 Preparation

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Comply with manufacturer's product data including product technical bulletins, product catalog installation instructions, and product carton instructions.
- D. Surfaces to receive panels shall be even, smooth, sound, clean, and free from defects detrimental to panel installation.
- E. Field measure and verify dimensions as required.
- F. Protect adjacent areas or surfaces from damage as a result of the Work of this Section.

### 3.3 Installation

- A. Install in accordance with manufacturer's instructions.
- B. Sheathing and water resistant membrane (if specified) by others.
- C. Erect panels level and true to intended plane.
- D. Maximum deviation from vertical and horizontal alignment of erected panels shall be no more than 1/4 inch in 20 feet (1 mm in 1 m).
- E. Conform to panel manufacturer's instructions for attachment systems.
- F. Weather seal all joints as required using methods and materials as recommended by the panel manufacturer.

### 3.4 Protection

- A. Remove temporary coverings and protection to adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance.
- B. Remove and legally dispose of construction debris from project site.
- C. Protect installed products until completion of project.
- D. Touch-up, repair or replace damaged products before Substantial Completion.

— END OF SECTION —