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SECTION 09 78 13 – METAL INTERIOR WALL PANELS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Porcelain enameled steel faced panel with high density fiberboard (HDF) core and aluminum backer.
[Aluminum] trim.
- B. Products Not Furnished or Installed under This Section:
Gypsum [Cementitious] substrate board.
Resilient Base.

1.2 RELATED SECTIONS

- A. Section [____] – Gypsum [Cementitious] substrate board.
- B. Section [____] - Wood [Metal] Stud Framing
- C. Section [____] - Resilient Base.

1.3 REFERENCES

- A. American Society for Testing and Materials: Standard Specifications (ASTM)
 - ASTM D 3363 – Hardness
 - ASTM C 501 – Wear Resistance
 - ASTM D 2244 – Color Tolerance
 - ASTM D 2244 – Reflectance
 - ISO 15695 – Scratch Resistance
 - ISO 28722 – Graffiti Resistance
 - ISO 4532 – Impact Resistance
 - ISO 4892 – UV Resistance
 - ISO 28706-1 – Cold Acid Resistance
 - ISO 28706-2 – Boiling Acid Resistance
 - ASTM D523 – Orange Peel (Specular Gloss)
 - ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials

1.4 SUBMITTALS

- A. **Product Data:** Submit sufficient manufacturer's data to indicate compliance with these specifications, including:
Product Brochure
Preparation instructions and recommendations.
Storage and handling requirements and recommendations.
Installation methods.
- B. **Shop Drawings:** Submit elevations of each wall showing location of paneling and trim members with respect to all discontinuities in the wall elevation.
- C. **Selection Samples:** Submit manufacturer's standard color pattern selection samples representing manufacturer's full range of available colors and patterns.
- D. **Samples for Verification:** Submit appropriate section of panel for each finish selected indicating the color, texture, and pattern required.
Submit complete with specified applied finish.
For selected patterns show complete pattern repeat.
Exposed Molding and Trim: Provide samples of each type, finish, and color.
- E. **Manufacturers Material Safety Data Sheets (MSDS)** for adhesives, sealants and other pertinent materials prior to their delivery to the site (available as downloads for most Marlite's products at <http://www.marlite.com/tech-details.aspx> or by contacting Marlite at info@marlite.com).

1.5 QUALITY ASSURANCE

- A. Conform to building code requirements for interior finish for smoke and flame spread requirements as tested in accordance with:
ASTM E 84 (Method of test for surface burning characteristics of building Materials)
Wall Required Rating – Class [A].

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials factory packaged on strong pallets.
- B. Store panels and trim lying flat, under cover and protected from the elements. Allow panels to acclimate to room temperature (range of 60 to 75°F) for 48 hours prior to installation.

1.7 PROJECT CONDITIONS

- A. **Environmental Limitations:** Building is to be fully enclosed prior to installation with sufficient heat (70°) and ventilation consistent with good working conditions for finish work
- B. **During installation and for not less than 48 hours before,** maintain an ambient temperature and relative humidity within limits required by type of adhesive used and recommendation of adhesive manufacturer.
Provide ventilation to disperse fumes during application of adhesive as recommended by the adhesive manufacturer.

1.8 WARRANTY

- A. Furnish one year guarantee against defects in material and workmanship.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURER

- A. Marlite; 1 Marlite Drive, Dover, OH 44622. 800-377-1221 FAX (330) 343-4668 Email: info@marlite.com www.marlite.com.
- B. Product:
a3™ CeramicSteel Architectural Panels

2.2 PANELS

- A. a3 CeramicSteel surface, High Density Fiberboard (HDF) core, Aluminum backer.
Finish: Standard Matte (approx. 30% Gloss), Standard Gloss (approx. 95% Gloss).
Dimensions:
Thickness – .250”
Width - 4'-0” (1.22m) nominal, 47¾” actual
Length – [10'-0” (3.0m) nominal, 119 ¾” actual][8'-0” (2.4m) nominal, 95¾” actual][As indicated on the drawings]
Tolerance:
Length and Width: +/-1/8 “ (3.175mm)
Square - Not to exceed 1/8 “ for 8 foot (2.4m) panels or 5/32 “ (3.96mm) for 10 foot (2.4m) panels
- B. Properties: Resistant to chemicals, scratch, bacteria, fire, graffiti and stain.
ASTM D 3363 – Hardness, greater than 9H.
ASTM C 501 – Wear Resistance, 0.1 g maximum.
ASTM D 2244 – Color Tolerance, comply with ASTM D 2244.
ASTM D 2244 – Reflectance, Y-value up to 93%.
ISO 15695 – 7 N minimum.
ISO 28722 – Graffiti Resistance, no color or gloss changes after cleaning.
ISO 4532 – Impact Resistance, no damage over 2mm after 24 hours (20 N load).
ISO 4892 – UV Resistance, comply with ISO 4892.
ISO 28706-1 – Cold Acid Resistance, Class A minimum.
ISO 28706-2 – Boiling Acid Resistance, 18.5 g/m2 maximum.
ASTM D523 – Orange Peel (Specular Gloss), comply with ASTM D523.
ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials, Flame spread 0, Smoke Developed 75, Class A rating.
- C. Back Surface: Smooth Aluminum backer. Imperfections which do not affect functional properties are not cause for rejection.

- D. Front Finish: [As Indicated on the Drawings] [In accordance with pre-approved sample. Information available from the Architect's Office][_____]

Specifier Note: Marlite a3 CeramicSteel Architectural Panels are available in Class A (I) fire-rating, along with various surface finish and color.

Color: [Specifier to choose.]

Marlite a3 CeramicSteel Architectural Panels are available in a variety of colors, including;

N-52 New White (Standard Gloss Finish)
PEI-14 Ivory (Standard Gloss Finish) *
PEI-22 Powder Grey (Standard Gloss Finish) *
513 Stone Grey (Standard Gloss Finish) *
PEI-29 Light Blue (Standard Gloss Finish) *
N-50 Medium Bronze (Standard Gloss Finish) *
1369 Bronze (Standard Gloss Finish) *
PEI-28 Glossy Black (Standard Gloss Finish) *
7563 Bone White (Standard Matte Finish) *
PEI-118 Stone White (Standard Matte Finish) *
5727 Colonial White (Standard Matte Finish) *
7477 Cream White (Standard Matte Finish) *
TCM-37 Sahara Sand (Standard Matte Finish) *
7568 Pueblo Tan (Standard Matte Finish) *
7571 Beige (Standard Matte Finish) *
N-125 Light Grey (Standard Matte Finish) *
7567 Fashion Grey (Standard Matte Finish) *
7569 Military Blue (Standard Matte Finish) *
TCM-27 Red Clay (Standard Matte Finish) *
7570 Antique Bronze (Standard Matte Finish) *
7551 Hartford Green (Standard Matte Finish) *
TCM-60 Dark Bronze (Standard Matte Finish) *
TCM-14 Matte Black (Standard Matte Finish) *
3020 Traffic Red (Premium Color) *
5015 Sky Blue (Premium Color) *
5010 Gentian Blue (Premium Color) *

* minimum quantities may apply.

Custom imaging and colors are available. Minimum quantities may apply.
Contact a Marlite representative for details.

Surface [Specifier to choose.] Standard Matte (approx. 30% Gloss), Standard Gloss (approx. 95% Gloss).

Fire Rating [Specifier to choose.] a3 CeramicSteel panels are available in Class A Fire Rating.

Size: [Specifier to choose, or as indicated on drawings.] standard sizes are;

a3 CeramicSteel panels

4' x 8' x 1/4" nominal, 47 3/4" x 95 3/4" x .250" actual.

4' x 10' x 1/4" nominal, 47 3/4" x 119 3/4" x .250" actual.

2.3 MOLDINGS

Aluminum Trim: Heavy weight extruded aluminum 6063-T5 alloy prefinished at the factory.

Profiles :

FC566 Ribbed Division Designer Trim, 8' length
FC567 Radius Division Designer Trim, 8' length
FC568 Square Channel Division Designer Trim, 8' length
565 Division Trim, 8' length
551 Inside Corner, 8' length
560 Outside Corner, 8' length
570 Edge, 8' length

Color: [Factory Oven-Baked Harmonizing Finish to match spec'd panel][Black Satin Anodized][Clear Satin Anodized]

B. Outside Corner Guard:

F 560SS Stainless Corner Guard, [8' length][10' length]

Finish: #4 brushed satin

M 961 PVC Outside Corner Guard

Color: [White, [8' length][10' length]][Natural Almond, [8' length][10' length]][Ivory, 10' length][Silver, 10' length][Light Grey, 10' length]

2.4 ACCESSORIES

A. Adhesive: Either of the following construction adhesives complying with ASTM C 557.

Marlite C-551 FRP Adhesive - Water-resistant, non-flammable adhesive.

Marlite C-915 Construction Adhesive - Flexible, water-resistant, solvent based adhesive, formulated for fast, easy application.

B. Sealant:

Marlite Brand MS-250 Clear Silicone Sealant.

Marlite Brand MS-251 White Silicone Sealant.

Marlite Brand - Color Match Sealant.

PART 3 - EXECUTION

3.1 PREPARATION

A. Examine backup surfaces to determine that corners are plumb and straight, surfaces are smooth, uniform, clean and free from foreign matter, nails countersunk, joints and cracks filled flush and smooth with the adjoining surface.

Verify that stud spacing does not exceed 24" (61cm) on-center.

Verify that sub wall has a vapor barrier to prevent moisture.

- B. Repair defects prior to installation.
Level wall surfaces to panel manufacturer's requirements. Remove protrusions and fill indentations.

3.2 INSTALLATION

- A. Comply with manufacturer's recommended procedures and installation sequence.
- B. Cut sheets to meet supports allowing 1/8" (3 mm) clearance for every 8 foot (2.4m) of panel.
Cut panels "face-up" with a carbide-tipped table saw or cut panels "face-down" using a circular saw with a carbide-tipped blade. Leave protective film on panels when cutting.
- C. Apply panels to board substrate, above base, vertically oriented.
Install panels with manufacturer's recommended gap for panel field and corner joints.
Adhesive trowel and application method to conform to adhesive manufacturer's recommendations.
- D. Apply panel moldings to all panel edges with required clearances.
All moldings must provide for a minimum 1/8" (3mm) of panel expansion at joints and edges, to insure proper installation.
Apply sealant to all molding channels for moisture-proof installations.

3.3 CLEANING

- A. Remove excess sealant from panels and moldings. Wipe panel down using a damp cloth and mild soap solution or cleaner.
- B. Refer to manufacturer's specific cleaning recommendations.

END OF SECTION 09 7720