SECTION 09 78 00

INTERIOR WALL PANELING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Prefinished decorative wall panels
   2. Trim
   3. Finish Schedule: **[_____]**

B. Related Sections:
   1. Section **[09 20 00]** Plaster and Gypsum Board
   2. Section **[09 21 00]** Plaster and Gypsum Board Assemblies

1.2 SUBMITTALS

A. Shop Drawings: Indicate panel location, sizes, attachments and relationship to adjacent construction.

B. Action Submittals
   1. Product Data: Manufacturer's descriptive data and physical properties.
   2. Samples: Provide the following:
      a. **[2-inch x 3-inch physical color samples] [8-inch x 11-inch sample of specified color]**

b. **[6-inch long trim sample and color options]**

C. Close Out Submittals:
1. Cleaning and maintenance instructions
2. Approved cleaning materials

D. Sustainable Design Submittals:
1. Indoor Air Quality: Low-Emitting material compliance per CDPH Standard Method

1.1 QUALITY ASSURANCE

A. Manufacturer:
1. Minimum 5-years successful, documented experience in producing panel materials.
2. Produces panels compliant with 01350 CDPH low-emitting material requirements

B. Installer Qualifications:
1. Minimum 2-years installation experience with verifiable panel installation history.
2. Approved by Manufacturer.

C. Fabricator:
1. Minimum 2-years installation experience with verifiable panel installation history.
2. Approved by Manufacturer.

C. Pre-Installation Meeting:
3. Schedule: Four (4) weeks prior to installation of panels.
4. Attendance: **[Installer] [Architect] [Owner] [__add_]**
5. Record meeting review and discussion as meeting minutes.
6. Review and discuss:
a. Panel color
b. Panel transitions, terminations and connections.
b. Installation requirements
c. Protection during construction.

1.2 FIELD CONDITIONS

A. Maintain interior room conditions of 60 and 85 degrees F (15 to 29 degrees C).

1.3 DELIVERY, STORAGE AND HANDLING

A. Deliver, store and handle in accordance with manufacturers instructions.

B. Deliver materials in factory packaging and verify labeling, color and quantity to meet project requirements.
1. Notify supplier of panels requiring immediate replacement.

1.4 WARRANTY

A. Provide manufacturers standard 10-year written warranty for defects.

B. Installer to warrant installation defects and labor for a period of 5-years.
1. Remove, replace and re-install panels during warranty period at no cost to Owner.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: EGR Inc., 2041 Lynx Place, Building 4, Unit 9, Ontario, CA 91761. (909) 295-6622
Web: www.lustrolite.com Email: info@lustrolite.com

B. Substitutions: **[No substitutions] [or equal]**

2.2 MATERIAL

A. Decorative Wall Panel: Scratch and chemical resistant, opaque panels

1. Basis of Design: **Lustrolite** Acrylic PMMA based panel
   a. Physical Properties:

1. Thickness	Nominal 5/32" (3.96 mm)	
2. Color	**[_add color__] [As selected by Architect]**	
3. Surface Texture	Smooth, no texture	
4. Finish	Ultra High Gloss	

   b. Panel Properties: Minimum test results

1. Specific Gravity	1.2	ASTM D792
2. Water Absorption	<0.5%	ASTM D570
3. Tensile Strength	70MPa	ASTM D638
4. Elongation at Yield	4%	ASTM D638
5. Tensile Modulus	3,000MPa	ASTM D638
6. Flexural Strength	100MPa	ASTM D790
7. Flexural Modulus	3000MPa	ASTM D790
8. Izod Impact; Milled Notch	15J/m	ASTM D256
9. Pencil Hardness	>6H	ASTM D3363
10. Erichsen Hardness	>1.1N	ISO 4586-2
11. Abrasion	10% gloss	ASTM D1044
12. Deflection Temperature	203°F (96°C)	ASTM D1044
13. Thermal Expansion	0.65mm/36"/18°F	ASTM D696

   c. Fire Properties:

1. Burning of Plastics	1-inch/min (18.5mm/min)	ASTM D635
2. Smoke Density Rating	Pass/ 3.7% (max 12%)	ASTM D2843
3. Ignition Temperature	627°F (331°C)	ASTM D1929
4. Spontaneous Ignition Temp	Pass/ 734°F (390°C)	ASTM D1929
5. Fame Spread Index	93, Class C	ASTM E84
6. Smoke Development	>450, Non-compliant	ASTM E84

****OR****

1. Basis of Design: **Lustrolite 100**, High-Impact fire resistant, self-extinguishing, polycarbonate panel
   a. Physical Properties:

1. Thickness:	5/32" (3.96 mm)	
2. Color:	**[_add color__] [As selected by Architect]**	
3. Surface Texture:	Smooth, no texture	
4. Finish:	Ultra High Gloss	

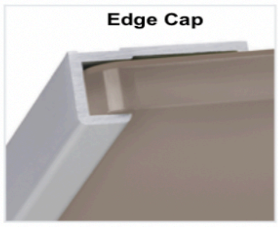
   b. Panel Properties: Minimum test results

1. Specific Gravity:	1.2	ASTM D792
2. Water Absorption:	0.15%	ASTM D570
3. Tensile Strength:	70MPa	ASTM D638
4. Elongation at Yield:	6%	ASTM D638
5. Tensile Modulus	2,410MPa	ASTM D638
6. Flexural Strength	96MPa	ASTM D638

7.	Flexural Modulus	100MPa	ASTM D790
8.	Izod Impact; Milled Notch	950J/m	ASTM D256
7.	Pencil Hardness	>6H	ASTM D3363
8.	Erichsen Hardness	≥0.5N	ISO 4586-2
9.	Abrasion	<10% gloss	ASTM D1044
10.	Deflection Temperature	269.9°F (132°C)	ASTM D648
11.	Thermal Expansion	0.65mm/36”/18°F	ASTM D696
c.	Fire Properties:		
1.	Flame Spread	Compliant	NFPA 286
2.	Flashover	Compliant	NFPA 286
3.	Peak Heat Release	Compliant	NFPA 286
4.	Smoke Release	Compliant	NFPA 286
5.	Flame Spread Rating	25, Class A	CAN/UL S102.2-10
6.	Smoke Developed Classification	370, Class A	CAN/UL S102.2-10
7.	Burning Behavior	V-0	UL94

2.3 ACCESSORIES

A. Adhesive and Joint Sealant: Single-component, 100% neutral-cure silicone meeting VOC compliance.



C. Optional Trim: [**Silver [or] Painted] Anodized Aluminum**] OR [**White [or] Colored PVC**] trim.
1. [Internal Corner: Recessed 90-degree corner trim for connecting panels.]
2. [External Corner: Exposed 90-degree corner for joining panels at edges.]
3. [Straight Joint: Secure adjacent panels at wall joints.]
4. [Edge Cap: Installed at panel boarders to protect edges and finish]

D. Temporary Protection: Manufactures single and double sided factory applied peal-coat protector.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Review manufactures installation instructions, on site conditions and precautions.

B. Verify surfaces are level, plumb and wall framework and substrates are approved for panel installation.

C. Installation deems acceptance of on site conditions for a warranted installation.

3.2 PREPARATION

A. Clean surface of contaminants, and repair imperfections to match adjacent surfaces.

3.3 APPLICATION

A. Install materials and accessories in accordance with manufacturer’s instructions.

B. Cut and drill panels to match adjacent surfaces at perimeter and around penetrations.

1. Clean and smooth edges to match factory finish.

C. Maintain manufacturers required spacing at edges, perimeter and penetrations to allow for expansion and contraction.
   1. When temperatures are cooler than 60 degrees F, follow manufacturer's requirements for proper edge spacing to accommodate expansion.

D. Apply adhesive and double sided tape to substrate, fully securing panel to substrate for a continuous visual appearance.
   1. Install [trim] [silicone sealant] at [corners] [and edges].
   2. Allow silicone to dry in accordance with manufacturer's instructions.

3.4 FIELD QUALITY CONTROL

A. Verify panel is secured to substrate, and sealant is flush at joints.
   1. All edges are smooth without abrasive edges.
   2. All expansion gaps are in accordance with manufacturer's specification.

3.5 CLEANING

A. Clean panels in accordance with manufacturer's instructions.

3.5 PROTECTION

A. Maintain temporary protection face to prevent contamination and damage.

END OF SECTION