

**SECTION 07 42 43 – COMPOSITE WALL PANELS**

This section includes editing notes to assist the user in editing the section to suit project requirements. These notes are included as hidden text, and can be revealed or hidden by the following method in Microsoft Word:

Display the FILE tab on the ribbon, click OPTIONS, then DISPLAY. Select of deselect HIDDEN TEXT.

This guide specification section has been prepared by DIZAL, Inc. for use in the preparation of a project specification section covering composite metal panels.

The following should be noted in using this specification:

Hypertext links to manufacturer websites are included after manufacturer names to assist in product selection and further research. Hypertext links are contained in blue, e.g.:

 [www.dizal.com](http://www.dizal.com)

Optional text requiring a selection by the user is enclosed within brackets and as red text, e.g.: Color: [Red.] [Black.]"

Items requiring user input are enclosed within brackets and as red text, e.g.: "Section [\_\_ \_\_ \_\_ - \_\_\_\_\_\_\_\_]."

Optional paragraphs are separated by an "OR" statement included as red text, e.g.:

 \*\*\*\* OR \*\*\*\*

For assistance in the use of products in this section, contact DIZAL, Inc. by calling 1-855-915-9400 or visit their website at [www.dizal.com](http://www.dizal.com).

~~This specification has been prepared based on S-Specs specification templates. The S-Specs Master Guide Specification system comprises a full architectural master specification that can be used to specify all project requirements. For additional information on S-Specs products visit the ZeroDocs.com website at .~~

# PART 1 – GENERAL

* 1. SUMMARY
1. Section Includes:
2. Wall panel assembly consisting of:
	1. Aluminum Composite Material (ACM)
	2. Installation Parts and Accessories
3. The extent of the wall panel assembly as indicated in these specifications and in the drawings.
4. Related Sections
5. Section 05 10 00 - Structural Metal Framing
6. Section 06 10 00 - Rough Carpentry
7. Section 07 20 00 - Thermal Protection
8. Section 07 60 00 - Flashing and Sheet Metal
9. Section 07 90 00 - Joint Protection
10. Section 08 80 00 - Glazing
11. Section 08 40 00 - Entrances, Storefronts, And Curtain Walls
12. Section 08 50 00 - Windows
	1. REFERENCES
13. American Society for Testing and Materials (ASTM)
14. ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
15. ASTM D523 Standard Test Method for Specular Gloss
16. ASTM D3359 Standard Test Methods for Measuring Adhesion by Tape Test
17. ASTM D2244 Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates
18. ASTM D2794 Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
19. ASTM D3363 Standard Test Method for Film Hardness by Pencil Test
20. ASTM D6578 Standard Practice for Determination of Graffiti Resistance
21. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
22. ASTM E283 Standard Test Method for Determining Rate of Air Leakage through Exterior Windows, Curtain Walls, And Doors Under Specified Pressure Differences Across the Specimen
23. ASTM E330 Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference
24. ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, And Curtain Walls by Uniform Static Air Pressure Difference
25. ASTM G154 Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials
26. ASTM G155 Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials
27. American Architectural Manufacturers Association (AAMA)
28. AAMA 2604 Voluntary Specification, Performance Requirements and Test Procedures for

 High Performance Organic Coatings on Aluminum Extrusions and Panels

1. AAMA 501.1 Standard Test Method for Water Penetration of Windows, Curtain Walls, and

 Doors Using Dynamic Pressure

1. AAMA 509 Voluntary Test and Classification Method for Drained and Back Ventilated Rain

 Screen Wall Cladding Systems

* 1. SUBMITTALS
		1. Action Submittals:
			1. Product Data: Manufacturer’s descriptive data and product attributes for metal panels.
			2. Samples: [Selection samples.] [Verification samples.]
		2. Informational Submittals:
			1. Certificate of Compliance: Certification that installed products meet specified design, performance, and fire hazard requirements.
	2. ADMINISTRATIVE REQUIREMENTS
		1. Pre-Installation Conference:
			1. Attendance: [Design Professional,] [Owner,] [Contractor,] [Construction Manager,] [installer,] [and related trades.]
			2. Review: Project conditions, manufacturer requirements, delivery, and storage, staging and sequencing, and protection of completed work.
	3. SYSTEM DESCRIPTION
		1. Design Requirements:
			1. Live loads in accordance with Building Code.
			2. Minimum wind pressures in accordance with [ASCE 7,] [Building Code,] [\_\_\_\_,] with maximum allowable deflection of [L/175] [\_\_] [, tested in accordance with ASTM E330].
			3. Movement caused by an ambient temperature range of [120] [\_\_] degrees F and a surface temperature range of [160] [\_\_] degrees F.
			4. System design to be performed by qualified professional engineer licensed in State of [\_\_\_\_].
		2. Performance Requirements:
			1. Air leakage: Maximum [0.06] [\_\_] CFM per square foot of wall area, measured at reference differential pressure across assembly of [1.57] [\_\_] PSF, tested to ASTM E283.
			2. Comply with AAMA 501.1 and AAMA 509.
			3. Adhesion: 5B, tested to ASTM D3359.
			4. Ultraviolet resistance: 2000h, tested to ASTM G155.
			5. Graffiti Resistance: Tested to ASTM D6578.
	4. QUALITY ASSURANCE
		1. Regulatory Requirements:
			1. Maximum flame spread index 20 / smoke developed index 120: Class A, tested to ASTM E84.
		2. System design to be performed by qualified professional engineer licensed in State of [\_\_\_\_].
	5. DELIVERY, STORAGE AND HANDLING
		1. Deliver components, aluminum composite material panels, and other manufactured items so as not to be damaged or deformed. Package aluminum composite material panels for protection during transportation and handling.
		2. Unload, store, and erect aluminum composite material panels in a manner to prevent bending, warping, twisting, and surface damage.
		3. Stack aluminum composite material panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store aluminum composite material panels to ensure dryness, with positive slope for drainage of water. Do not store aluminum composite material panels in contact with other materials that might cause staining, denting, or other surface damage.
		4. Retain strippable protective covering on aluminum composite material panels during installation.
	6. WASTE MANAGEMENT AND DISPOSAL
		1. Separate waste materials for recycling and disposal in accordance with Division 01 Requirements.
	7. WARRANTIES
		1. Manufacturer’s 25 years finish warranty providing coverage against:
			1. Corrosion.
			2. Cracking and crazing of finish.
			3. Finish color change greater than 5 units.
			4. Loss of finish gloss exceeding 70 percent of original.
			5. Loss of finish adhesion.

# PART 2 – PRODUCTS

* 1. MANUFACTURER
		1. Contract Documents are based on panels with digitally printed finish by DIZAL, Inc. [www.dizal.com](http://www.dizal.com)
		2. Substitutions: Refer to Division 01.
	2. MATERIALS
		1. Composite Metal Panels:
			1. Type: Aluminum face sheets with thermoplastic core.
			2. Face sheets: ASTM B209.
			3. Thickness: 4 mm.
			4. Finish for exterior faces:
* Three-layer color and texture finish including:
	+ - * 1. Primer coat.
				2. High-definition digital inkjet printing to create photographic reproductions of colors and textures.
				3. Protective clear coat.
* Ultraviolet fade rest: No change in 2000 hours, tested to ASTM G155.
* Color: To match DIZAL [TEXTURE and COLOR reference XXX-XX].
	+ 1. Aluminum Extrusions:
			1. ASTM B221, 6063-T5 alloy and temper.
			2. Finish for exposed faces: AAMA 2604 Polyester resin, [Charcoal] color (or other upon request).

# PART 3 – EXECUTION

* 1. INSTALLATION
1. Install in accordance with manufacturer's instructions and approved Shop Drawings.
	1. CLEANING
2. Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.
3. Clean finished surfaces in accordance with manufacturer's written instructions and keep them clean during construction.

END OF SECTION

DISCLAIMER:

This Specification have been written as an aid to the professionally qualified Specifier and Design Professional. The use of this Guide requires the sole professional judgment and expertise of the qualified Specifier and Design Professional to adapt the information to the specific needs for the Building Owner and the Project, to coordinate with their Construction Document Process, and to meet all the applicable building codes, regulations and laws. DIZAL INC. EXPRESSLY DISCLAIMS ANY WARRANTY, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OF THIS PRODUCT FOR THE PROJECT.