SECTION 09 84 33

SOUND ABSORBING WALL UNITS

**\*\* DELETE NOTE \*\* To see hidden specifier text select File->Options->Display->Show Hidden Text or press Ctrl+Shift+8 \*\* DELETE NOTE \*\***

\*\* NOTE TO SPECIFIER \*\* Rulon International; Suspended wood ceiling products.
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This section is based on the products of Rulon International, which is located at:
2000 Ring Way Rd.
St Augustine, FL 32092
Toll Free Tel: 800-227-8566
Tel: 904-584-1400
Fax: 904-584-1499
Email:[request info (info@rulonco.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Rulon+International&coid=41073&rep=&fax=904-584-1499&message=RE:%20Spec%20Question%20(09510rul):%20%20&mf=)
Web:[rulonco.com](http://rulonco.com)
[[Click Here](http://www.arcat.com/arcatcos/cos41/arc41073.html)] for additional information.
Rulon International has been manufacturing wood ceilings and acoustical wood walls for over 25 years. Rulon's state-of-the-art headquarters and manufacturing facility is located in Saint Augustine, Florida. Rulon's history of success is due to an unrelenting commitment to excellence in both product quality and customer service. Rulon is committed to giving back to the community. As Rulon experiences success as a company, we feel privileged to help those less fortunate, so they too may experience blessings. Through wise business leadership, loyal and skilled employees, Rulon continues to lead the industry in the manufacturing of suspended ceiling and acoustical wood wall systems.

1. GENERAL
	1. SECTION INCLUDES
		1. Aluratone Wall Panels
	2. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 07 21 16 - Blanket Insulation.
		2. Section 07 90 00 - Joint Protection.
		3. Section 08 31 13 - Access Doors and Frames.
		4. Section 09 23 13 - Acoustical Gypsum Plastering.
		5. Section 09 54 16 - Luminous Ceilings.
		6. Section 40 68 23 - Reporting Software.
		7. Section 28 31 00 - Fire Detection and Alarm.
		8. Section 21 00 00 - Fire Suppression.
		9. Section 23 37 23.16 - HVAC Gravity Louvered-Penthouse Ventilators.
		10. Section 26 51 00 - Interior Lighting.
		11. Section 27 51 16 - Public Address Systems.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM E 84 - Title; 2001.
		2. FSC STD-01-001 - FSC Principles and Criteria for Forest Stewardship
		3. FSC STD-40-004 - FSC Standard for Chain of Custody Certification
		4. U.S. Green Building Council, LEED Building Design and Construction (BD+C)Version 4.0 Rating System. (LEED v4.0)
		5. Build America Buy America (BABA) Provisions, 49 U.S.C. § 5323(j)
	1. DESIGN / PERFORMANCE REQUIREMENTS
		1. Wood is a natural product that will undergo changes with variations in the environment. Therefore, all dimensional tolerances are plus or minus 1/8 inch (3 mm).

\*\* NOTE TO SPECIFIER \*\* Include the following paragraph for suspended ceilings where fire rated suspended ceilings are required. Delete if not required.

* + 1. Fire Performance Characteristics: Wood wall panels shall conform to Class 1, or A flame spread rating, tested according to ASTM E 84; Flame Spread: 25 or less. Smoke Developed: 450 or less.

\*\* NOTE TO SPECIFIER \*\* Include the following paragraph for suspended ceilings where FSC certified suspended ceilings are required. Delete if not required.

* + 1. Certified Wood: Wood wall panels shall be certified as "FSC Pure" or "FSC Mixed Credit" according to FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship," and FSC STD-40-004, "FSC Standard for Chain of Custody Certification”

\*\* NOTE TO SPECIFIER \*\* Include the following paragraph for suspended ceilings where Build America Buy America provisions are required. Delete if not required.

* + 1. Build America Buy America: Wood wall panels shall conform to the requirements of the Build America Buy America (BABA) provisions as defined in 49 U.S.C. § 5323(j), requiring that at least 55% of the total cost of components be manufactured in the United States.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data: Manufacturer's data sheets on each product to be used, including:
			1. Preparation instructions and recommendations.
			2. Storage and handling requirements and recommendations.
			3. Installation methods.
		3. Shop Drawings: Provide layout of wood wall panels, z-clips, and furring strips coordinated with other trades that will penetrate the wood walls or interfere with the installation and recessed or surface mounted devices located within the wall panels. Indicate method of attachments where interference exists.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if LEED is not applicable.

* + 1. LEED Submittals: Provide documentation of how the requirements of Credit will be met:
			1. LEED v4.0: Wood wall panels may contribute as required to the following LEED v4 credits: MR BPD&O - Sourcing of Raw Materials, MR BPD&O - Material Ingredients, EQ Low-Emitting Materials, EQ Minimum Acoustic Performance.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color brochures representing the manufacturer's full range of available colors and patterns.
		2. Verification Samples: For each finish product specified, two samples, minimum size 12 inches (305 mm) square, representing actual product, color, and patterns.
		3. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
		4. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic checking and adjustment and periodic cleaning and maintenance of all components.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum 5 years documented experience.
		2. Installer Qualifications: Minimum 2 years documented experience installing projects of similar size and complexity.

\*\* NOTE TO SPECIFIER \*\* Delete below if seismic design is not required.

* + 1. Provide seismic design of suspended wall under direct supervision of Professional Engineer experienced in design of this Work and licensed at Project location.

\*\* NOTE TO SPECIFIER \*\* 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.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
			1. Finish areas designated by Architect.
			2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
			3. Refinish mock-up area as required to produce acceptable work.
			4. Accepted mock-ups shall be comparison standard for remaining Work
		2. Pre-Installation Conference: Convene minimum two weeks prior to starting work of this section. Agenda shall include project conditions, coordination with work of other trades, and layout of items that penetrate walls.
	1. DELIVERY, STORAGE, AND HANDLING
		1. Deliver material in the manufacturer's original, unopened, undamaged containers with identification labels intact.
		2. Store products off the floor in manufacturer's unopened packaging protected from exposure to harmful environmental conditions and at temperature and humidity conditions as recommended by the manufacturer.
		3. A minimum of 72 hours prior to wall installation, wood wall panels shall be stored in the room in which they will be installed. Temperature and humidity of the room during this period shall closely approximate those conditions that will exist when the building is occupied.
		4. Handle materials to avoid damage.
	2. SEQUENCING
		1. Ensure that locating templates and other information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.
		2. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
	3. PROJECT CONDITIONS
		1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
		2. Space shall be fully enclosed with all exterior windows and doors in place, glazed, and weather-stripped. Roof is to be watertight, and all wet trades' work is to be completed, and thoroughly dry.
		3. Mechanical, electrical, and other utility services behind the wall plane shall be completed. No materials should rest against, or wrap around, the wall attachment components or connecting z-clips.
		4. Install only when the temperature and humidity closely approximate the interior conditions that will exist when the building is occupied. Heating and cooling systems shall be operating before, during, and after installation, with the humidity of the interior spaces maintained between 25 and 55 percent, and a temperature between 60 to 90 degrees F.
	4. COORDINATION
		1. Coordinate layout and installation of the wood wall panels with other work penetrating the wall including light fixtures, HVAC equipment, and fire suppression system components.
	5. EXTRA MATERIALS
		1. See Section 01 60 00 - Product Requirements.
		2. Deliver materials for Owner's use in maintenance.

\*\* NOTE TO SPECIFIER \*\* Delete options below not required; enter percentage or discrete number to be supplied.

* + - 1. Provide \_\_\_ percent of each type actually installed for use by owner in building maintenance and repair.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Rulon International, which is located at: 2000 Ring Way Rd.; St Augustine, FL 32092; Toll Free Tel: 800-227-8566; Tel: 904-584-1400; Fax: 904-584-1499; Email: request info (info@rulonco.com); Web:[rulonco.com](http://rulonco.com)

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
	1. MATERIALS - GENERAL
		1. Wood is a natural product that will undergo changes with variations in the environment. Therefore, all dimensional tolerances are plus or minus 1/8 inch (3 mm).
	2. ALURATONE WALL PANELS

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs for the System and Face Profile required and delete those not required.

* + 1. Aluratone 750 PERFection, Series acoustic ceiling panels are provided with precision face perforations. Aluratone PERFection will have precision face perforations. The back of the 3/4 inch (19 mm) core is drilled so that the intersection of the face holes and back holes will create openings through the panel. Acoustical absorptive black backing is applied in the factory. Acoustical performance is dependent on project design, application, mounting method, and additional sound absorbent material. Acoustical performance can be achieved up to NRC-0.90.

\*\* NOTE TO SPECIFIER \*\* Panels may be manufactured in sizes up to 4 feet (1219 mm by 10 feet (3048 mm). Insert the panel size required. Contact the manufacturer for additional information.

* + - 1. Panel Size: \_\_\_\_\_\_\_\_\_\_\_
			2. Face Profile:

\*\* NOTE TO SPECIFIER \*\* Select the face profile required from the following two paragraphs and delete the one not required.

* + - * 1. Aluratone 750 is manufactured with 0.022 inch (0.55 mm) perforations on staggered centers. Substrate is Back-Bored to allow for increased open area and greater sound attenuation while minimizing visible face machining.
				2. Aluratone 760 is manufactured with 0.039 inch (1 mm) perforations on 0.079 inch (2 mm) centers. Substrate is Back-Bored to allow for increased open area and greater sound attenuation while minimizing visible face machining.

\*\* NOTE TO SPECIFIER \*\* The following paragraph is optional. Delete if not required.

* + - 1. Trim and Border Treatment: Provide end caps or junction trims as indicated.
			2. Veneer Species:

\*\* NOTE TO SPECIFIER \*\* Insert the species required. Standard veneer wood species are: Ash, Maple, Red Oak, White Oak, Anegre, Beech, Bamboo, and Cherry. Standard surface texture is smooth-sawn. Premium veneers and non-wood laminates are also available. Contact the manufacturer for additional information.

* + - * 1. \_\_\_\_\_\_\_\_\_\_\_
			1. Finish:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs for the finish required and delete the one not required. Standard finish is satin clear. Custom stains, opaque or semi-transparent colors are also available. Contact the manufacturer for additional information.

* + - * 1. 20 Sheen Clear
				2. Custom Stain
	1. ACCESSORlES
		1. Acoustic Nonwoven Backers: Thin, sound-absorbing fabrics that can be applied to a substrate in order to increase sound attenuation.

\*\* NOTE TO SPECIFIER \*\* Coordinate with Rulon's Integrated Lighting program in partnership with GE Lighting. The program is an effort to coordinate MEPs more effectively and provide for a more streamlined process of integration. In practice, this effort begins with factory cutouts to accommodate light fixtures. Contact the manufacturer for additional information.

* + 1. Integrated Lighting System: Coordinate wall panels with lighting specified in Section 26 51 00 - Interior Lighting
		2. Z-Clips: Male/female aluminum attachment clips, similar to a French cleat but with a thinner profile, used to hang wood wall panels on furring strips.
	1. ATTACHMENT SYSTEMS
		1. Furring Strips: Thin strips of fire-treated plywood or other non-combustible or limited combustible material shall be used in conjunction with fire treated or other non-combustible or limited combustible shims to level or raise z-clip attachment points so that, when installed, wood wall panels are flush and plumb.
	2. FABRICATION
		1. Edges, borders, and perimeter trims shall be indicated on the Drawings in accordance with the manufacturer's standard design details. All wood wall panel products specified shall be supplied by the wood wall panel manufacturer.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared.
		2. Verify that furring strips are in place, attached and shimmed in a direction parallel to the floor.
		3. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Work shall not begin until the space is fully enclosed and glazed and all wet work is completed and dried out to the satisfaction manufacturer.
		3. Temperature shall be at least 65 degrees Fahrenheit during the installation and thereafter.
		4. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install in accordance with manufacturer's instructions and in proper relationship with adjacent construction, including the following:

\*\* NOTE TO SPECIFIER \*\* Include the following paragraph for suspended ceilings where seismic rated suspended ceilings are required. Delete if not required.

* + - 1. Comply with ASTM C 636 and seismic design requirements indicated.
		1. Install furring strips attached and shimmed in a direction parallel to the floor.
		2. Suspend panels from the z-clips as indicated.
		3. Make final adjustments to level or contours as required.
	1. FIELD QUALITY CONTROL
		1. Technical Service: Manufacturer shall provide a local Technical Service Representative for on-site training and assistance during the installation process.
		2. Environmental Monitoring: Manufacturer shall provide a temperature and humidity sensor to actively monitor the room in which the wood wall panels shall be installed for a minimum of one week before and up to two weeks after installation has been completed including all of the weeks in between.
		3. Upon completion of wall installation, the owner's representative shall inspect all finished surfaces to ensure that the work has been completed in a manner satisfactory to the owner. Any deficiencies in the install of the wall shall be corrected prior to substantial completion.
	2. ADJUSTMENTS AND CLEANING
		1. Clean exposed surfaces of wall panels in accordance with manufacturer's instructions.
		2. Remove and replace panels and tiles, which cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.
	3. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.
	4. SCHEDULES

\*\* NOTE TO SPECIFIER \*\* Retain Paragraph below if required to suit project requirements. Identify products by name on the Drawings or use this paragraph to define the location of each type of material to be used. The following are some examples of schedule references. Edit as required to suit project or delete and identify products on the Drawings.

* + 1. :
		2. :

END OF SECTION