SECTION 092900 – USG DANOLINE™ WALL AND CEILING PANELS, ACOUSTICAL PERFORATED GYPSUM.

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| **Product Summary:**  |
| * Reference product data sheet on USG.com IC758.
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| **Note to specification writers:** |
| * This document is not intended to function as a standalone specification. It is intended to assist the specifier in inserting the proper language into the following recommended specification sections:

09 29 00 – GYPSUM BOARD.09 22 16 – NON-STRUCTURAL METAL FRAMING* For more information, reference product submittal sheet, Installation guide IC730 or your local USG Architectural Service Representative for more information.
* BIM assets and CAD details available from USG.com
* This product is not intended to replace gypsum board layers in partitions, it is a finish material and for the acoustical properties to work, the panels are to be installed on z-channels, hat channels or steel studs; with acoustical insulation within the space between the perforated gypsum board and the partition behind.
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1.4  INFORMATIONAL SUBMITTALS

Retain "Coordination Drawings" Paragraph below if coordination is required for installation of products and materials by separate installers. Coordinate paragraph with other Sections specifying products listed below. Preparation of coordination drawings requires the participation of each trade involved in installations within the limited space.

* + - * 1. Coordination Drawings: Elevations and other details, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

Electrical outlets, switches, and thermostats.

Items penetrating or covered by units including the following:

Lighting fixtures.

Air outlets and inlets.

Speakers.

Alarms.

Sprinklers.

Access panels.

<Insert item>.

1. PRODUCTS
	* + 1. PERFORATED GYPSUM BOARD PANELS
				1. Acoustical Panel Type <**INSERT DESIGNATION HERE**>:

Basis of Design: Subject to compliance with project requirements, the design is based on the following: USG Interiors, LLC, “USG Danoline Wall and Ceiling Panels, Perforated Acoustical Gypsum”.

Panel Edge: 4 sided bevel, no visible joints after finishing.

Panel Thickness: 1/2 inch (12.7 mm).

Panel Size: **48 by 96 inches (1219 by 2438 mm).**

Perforation: [C6 Circles] [S9 Square].

Perforation Pattern: [2L2 Quarters] [2L4 Eights].

Percent Open Area: [C6 2L2 Circle 9.3%] [C6 2L4 Circle 8.3] [S9 Square 2L2 15%] [S9 2L4 Square 13.6%].

NRC: Not less than: **<Insert from Usg Data Sheet IC 758>.**

Color: Manufacturers standard [Flat White RAL 9003] [Unpainted -Field Paint].

Panel finishing: Fill and sand all screw holes with USG Setting Compound, sand and finish to a smooth & uniform appearance.

Panel Priming: [Spot apply primer as required] [apply one coat of primer with “dry Rolled” technique.

Finish Paint: Use “Dry Roller Technique” for paint application. Apply [One] [Two] Coats of finish paint <insert designation here> with low nap foam roller. Roll excess paint from brush prior to applying coat of paint. Avoid painting interior of perforations. Do not overload paint roller.

Filling of Holes at cut openings in tile: Apply USG Durabond© Setting-Type compound to holes adjacent to openings. Protect areas not to be filled with painting tape. Allow patching compound to dry, sand smooth, apply primer and paint where needed.

* + - 1. OPTIONAL ADDITIONAL ACOUSTICAL BACKER PANEL

For projects where enhanced acoustical performance is required above the standard NRC of the panels- remove if not required.

* + - * 1. If additional Acoustical performance is required, install optional acoustical panel above factory applied acoustical sheet. Field cut acoustical panels as required for a tight fit to the panel framing members.

Option 1: Acoustical Backer Panel

Basis-of-Design Product: USG Corporation; Mars High NRC/ High CAC panels.

Acoustical Absorption NRC: <Insert value from USG SC2487>.

Edge/Joint Detail: SQ Square.

Panel Thickness: 1 inch (25.4 mm).

Modular Size: 1’-10” by 3’-8” (560 by 1120 mm).

Installation: friction fit in between suspension framing members.

Option 2: Acoustical Board

Basis-of-Design Product: Knauf Insulation; Acoustical Smooth Board with ECOSE® Technology.

Acoustical Absorption: <Insert value Data Sheet IC756>.

Edge/Joint Detail: SQ Square.

Panel Thickness: [3/4 inch (19 mm)] [1 inch (25.4 mm)] [1 1/2 inch (38 mm)] [2 inch (51 mm)].

Modular Size: 2’-4’ wide by 4’-10’ long (610-1500 by 1219-3050 mm).

Installation: friction fit in between suspension framing members.

* + - 1. STEEL FRAMING FOR VERTICAL DIRECT APPLIED PANELS
				1. REFERENCE SPECIFICATION SECTION 092900 GYPSUM BOARD FOR MORE INFORMATION.
			2. STEEL FRAMING FOR HORIZONTAL [SUSPENDED PANELS] [DIRECT APPLIED PANELS]

Indicate framing/application method for each panel type, remove unused framing/attachment systems.

* + - * 1. Drywall Suspension System for Perforated Gypsum Panels: <Insert drawing designation>:

Basis-of-Design Product: USG Corporation; Drywall Suspension System, main tee (heavy duty).

Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than [25] <Insert value> percent.

Framing Members, General: Comply with ASTM C754 for conditions indicated.

Protective Coating: ASTM A653/A653M, G40 (Z120), hot-dip galvanized unless otherwise indicated.

Framing System:

Deflection criteria: L/240 in accordance with ASTM C635.

Galvanized Steel: G40 double-web tee, hot-dipped galvanized steel.

Framing Members - Suspension System Main Tees:

Basis-of-Design Product: USG Corporation; DLGW26 (Heavy Duty, Main Tee), field cut as needed.

Three Way Off-Module Clip:

Basis-of-Design Product: USG Corporation; DH3 (quantity (2) per DWSS tee, (10) ten per panel, typical.

Attachment Devices: Size for five times the design load indicated in ASTM C635/C635M, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements, if applicable.

Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:

Zinc-Coated, Carbon-Steel Wire: ASTM A641/A641M, Class 1, zinc coating, soft temper.

Size: Minimum 0.108-inch- (2.7-mm-) diameter wire, 12 gauge, in accordance with ASTM C636.

The Direct-applied method with the Z-Channels allows the use of Acoustical Insulation Retention Clips, which increases the speed of installation.

* + - * 1. Direct Applied system: Z-Channel with slotted or unslotted web.

Channel Depth: 1 ½” (38mm).

Minimum Base-Metal Thickness: [As indicated on Drawings] [As required by performance requirements for horizontal deflection] [0.0179 inch (0.455 mm].

Retain sentence below if USG Mars High NRC or Knauf Black Ecose Acoustical Panels are used.

Accessories: Acoustical Insulation Retention Clips: USG Corporation; Retention Clip (1clip per 2-3 feet (600-900mm) of Z Channel, on-center, refer to USG IC-722 for more detailed information.

* + - * 1. Direct Applied system: Hat-Channel per ASTM C 645

Depth: [5/8” (16mm) acoustibond only] [1 ½” (38mm)].

Minimum Base-Metal Thickness: [As indicated on Drawings] [As required by performance requirements for horizontal deflection] [0.0179 inch (0.455 mm)] [0.0269 inch (0.683 mm)] [0.0296 inch (0.752 mm)] [0.0329 inch (0.836 mm)].

END OF SECTION

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