



DESIGN AND SPECIFICATIONS

Description

Quadrillo is an acoustical panel with a natural wood veneer finish. Acoustical absorption is achieved by a unique double v-groove in combination with Decoustics high performance acoustical core.

Panel edge conditions are available plain (unfinished), edge banded or fully framed with matching veneer finish. Panels can be mounted into existing millwork frames, or splined to create a monolithic appearance. Face frames of almost any width and profile can be created with a variety of corner details.

Standard profiles are grooves 5mm on-center and 10mm on-center. See Decoustics Wood brochure for other design profiles.

When used as a monolithic panel system, kerfed edges with splines are used to level the panel faces. The reveal between the panels is 3 mm which simulates the v-groove on a panel having ribs at 5 mm centers. Installed carefully, surfaces can appear monolithic, however panel joints are not invisible due to the change in geometry of the panel edges.

Quadrillo is available in a variety of natural wood veneers. Matching and custom veneers can also be accommodated.

When veneers are supplied by others, the minimum thickness is 0.6mm.

Limitations

Wood products are highly susceptible to changes in humidity and temperature. Close attention must be paid to acclimatization during installation, as per accepted millwork industry practice.

Recommended Uses

Ceilings and walls.

Available with Decoustics Ceilencio ceiling suspension system (downward access) and other direct mount and suspended ceiling systems. Note: the use of curved panels on Ceilencio may be limited. Consult Decoustics for use criteria.

The grooved Quadrillo facer is not available by itself as a finish for non-acoustical applications. The facer is designed to be used in a laminated or "sandwich" construction. Consult Decoustics for any non-acoustical application.

Features and Advantages

The Quadrillo composite panel is "Class A" (per ASTM E-84). Available in both standard and custom sizes.

Constructed from a no-added urea formaldehyde MDF core Impressive sound control properties.

Panels can be manufactured with grooves running horizontally or vertically. The grain and groove must be in the same direction. Consult Decoustics for maximum sizes.

Quadrillo panels are available with a clear, natural lacquer or toned or tinted to match other finishes. "See Finishing" under Design Considerations. Quadrillo is also available in a painted version to match any color.

Although the percentage of open area of Quadrillo is only approx. 4%, the patented v-grooves create a four sided "funnel" effect that allows sound to arrive at a variety of angles thereby focusing the transfer of energy over a broader surface area of absorption material.

Additional Product Data

ORDERING: As with most millwork process, Quadrillo is a longer lead time item and should generally be dealt with early in a project. Allow eight to ten weeks manufacturing time after all dimensions, veneer, samples and drawing approvals are provided. Custom matched or sequenced veneers may take longer and should be reviewed with DECOUSTICS in advance of ordering.

SAMPLES: It is important that samples be approved based on the finished product and not just a sample of veneer only. Held close in hand, a dark veneer with a lighter groove could be quite evident but when viewed at a moderate distance, the color will appear as one.

PANEL WEIGHT: Depending upon thickness and whether or not framed, generally a QPP-25 panel having an overall thickness of 1-3/8" (35mm) weighs an average of 3.5 lbs. per sq. ft. (17.1 kg/m²). A QPP-50 panel thickness of 2-3/8" (60mm) weighs an average of 5.5 lbs. per sq. ft. (26.85 kg/m²). Solid wood border frames can add significantly to these weights.

Decoustics Quadrillo® Wood Panel

Design Considerations

RECOMMENDED MAX PANEL SIZE: 4'-0" x 5'-0" (1220mm x 1525mm). Note: Large panels can be manufactured however a typical QPP-25 panel weighs approximately 3.50 lbs. per sq. ft. (17.1 kg/m²) and therefore a large 4'-0" x 10'-0" panel would weigh over 100 lbs. (45 kg) which may be impractical. Also, large panels are more susceptible to climactic changes. This can be overcome by using smaller panels. Decoustics typically recommends a more manageable size of 12 to 20 sq. ft. (1.1 to 1.9 m²) per panel.

VENEER SPECIFICATION: Quadrillo veneer lay-up is produced as slip matched, quarter sliced as a standard. Other veneer cuts and lay up options are available by request at additional cost. Veneer sequencing is not a standard practice but can be specified as required.

CURVED PANELS: See Maximum Panel Size above. Minimum radius for outside curve is approximately 16" (400mm) and inside curve is 24" (600 mm); tight radius panels may be non-acoustical.

After Installation - Maintenance Requirements

Quadrillo Acoustic Wood panels are manufactured using real wood veneers and engineered wood components and therefore should be cared for as all other Architectural wood products are.

When cleaning, vacuum panel surfaces using a non-marring, natural bristle head. Avoid hard or very short bristle cleaning heads.

Minor surface scuffing or scratches can be removed by lightly rubbing the affected area with a dry, clean pad of #0000 fine steel wool. Do not over apply. Avoid using water or a damp cloth on large surfaces as this may affect the stability of the membrane surface. Aerosol furniture polishes can be used on small areas, however, do not spray directly on the surface of the acoustic membrane. Apply small amounts on a soft cloth and rub gently.

Wood is a hygroscopic material, and under normal use conditions all wood products contain some moisture. Wood readily exchanges this molecular moisture with water vapor in the surrounding atmosphere according to existing relative humidity. In high humidity, wood picks up moisture and swells and in low humidity, gives up moisture and shrinks. These uncontrolled extremes may affect the structural integrity of the panels and cause visual problems. To avoid this, relative humidity should always be maintained between 35% and 55% in the area where panels are installed.

FINISHING: Quadrillo is available prefinished in natural lacquer or unfinished for post application by others. DECOUSTICS can provide custom lacquer toning, tinting and sheen to match other wood finishes. An acceptable representation should be supplied and a prototypical sample produced for design acceptance and sign off.

Cautionary Note: Quadrillo panels are frequently used in conjunction with solid, millwork veneer panels. It is highly recommended that a single finishing source produce both Quadrillo and Flat panels where toning and sheen are matched. In these instances, DECOUSTICS can provide unfinished panels.

ENVIRONMENT: Quadrillo panels must be stored, installed, and maintained only in a stable ambient environment (relative humidity of minimum 35% - maximum 55%, temperature to be maintained between 20 - 27°C (68-80°F)) Quadrillo panels must be allowed to stabilize on site for 72 hours prior to installation.

FINISH	PANEL THICKNESS	FREQUENCY (Hz)						NRC	SAA
		125	250	500	1000	2000	4000		
Quadrillo Type F5 Mounting									
QPP-19	Panel 1-1/8" (28mm) Core 3/4" (19mm)	0.05	0.16	0.59	1.01	0.94	0.69	0.70	0.69
QPP-25	Panel 1-3/8" (35mm) Core 1" (25mm)	0.07	0.28	0.85	1.09	0.95	0.74	0.80	0.79
QPP-50	Panel 2-3/8" (60mm) Core 2" (50mm)	0.29	0.82	1.18	1.06	1.00	0.73	1.00	1.03
Quadrillo Type E400 Mounting									
QPP-19	Panel 1-1/8" (28mm) Core 3/4" (19mm)	0.78	0.77	0.61	0.86	1.04	0.70	0.80	0.82
QPP-25	Panel 1-3/8" (34mm) Core 1" (25mm)	0.79	0.90	0.81	0.95	1.05	1.05	0.90	0.91
QPP-50	Panel 2-3/8" (60mm) Core 2" (50mm)	0.80	0.87	1.00	1.07	1.08	1.00	1.00	0.98

Additional test results available.

Note: The information provided in this Data Sheet is accurate to the best of our knowledge at the time of printing. However, we reserve the right to make changes when necessary without further notification. Suggested applications may need to be modified to conform with local building codes and conditions. We cannot accept responsibility for products that are not used, or installed to our specifications. Please refer to our website for most current data.

Note: Only handle panels wearing clean, lightweight, white gloves during installation. Follow manufacturer's printed instructions for installation as well as field cutting of panels.



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Code No. CTC-DC-0715-3000-3