

RONDOLO® BAFFLES



DESIGN AND SPECIFICATIONS

Description

Rondolo® Baffles consist of a micro perforated real wood veneer laminated to a Fire Rated (FR) No-Added Urea Formaldehyde (NAUF), Medium Density Fiberboard (MDF) frame infilled with a semi-rigid NAUF fiberglass core. The micro-perforations are a nominal 0.50mm diameter and spaced at about 1.7mm horizontally and 1mm vertically resulting in an open area percentage of approximately 7%.

Rondolo® Baffles are manufactured to the specified length(s) as required using specified veneer and delivered to-site as a finished product; field cutting is therefore typically not required.

Veneer and Customization

Rondolo® Baffles are readily available in the following real wood veneers: Maple, Beech, Ash, White Oak, Red Oak, Mahogany, Anigre, Cherry and Walnut, and are typically finished with a specialized water-based low VOC clear lacquer.

The veneer lay-up is typically slip matched, quarter cut; however, other veneer cuts and lay-up options are available upon request.

Rondolo® Baffles can also be supplied with a custom stained or toned lacquer finish as well as a specific sheen to match other wood finishes. Solid colored lacquer can also be matched to a wide range of customer provided paint samples.

Baffle Size and Weight

Baffle lengths up to 120" (3048 mm), heights from 4" (102 mm) to 8" (203 mm), and thickness from 1-1/4" (32 mm) to 2-1/2" (63 mm) are available.

Note: Due to weight restrictions of the various suspension and mounting methods, not all of the maximum dimensions can be specified in the same configuration. To achieve a maximum length, Decoustics recommends selecting a baffle height and thickness in the mid-range. Inquire with the factory for the range of different sizes and configurations.

Weight of a 1-1/2" (38 mm) thick by 4" (102mm), 6" (152 mm) and 8" (203 mm) high baffle is approx. 1 lbs./lin.ft (1.49 kg/lin.m), 1.5 lbs./lin.ft (2.23 kg/lin.m) and 2.0 lbs./lin.ft. (2.98 kg/lin.m).

Features and Advantages

Rondolo® Baffles achieve a Class A fire rating (flame spread of less than 25) for a fully assembled (composite) panel when tested to ASTM E84.

Our precision perforation method delivers great acoustical performance, reaching a NRC of up to 0.6 when tested in accordance with ASTM C423. (Calculations based on Sabins, see chart on next page).

Acoustical absorption characteristics can be modified by changing the thickness of the baffles as well as the spacing between installed baffles.

Easy installation methods and access to the plenum.

Made with a NAUF fire rated frame and filled with a NAUF acoustical fiberglass core.

Real wood veneer applied to both sides and three exposed edges. Also available as FSC® (FSC® C020536) certified.

Finished with specialized water-based low VOC clear lacquer or customized stain to suit project specific requirements.

Ordering

As with most millwork products, Rondolo® Baffles have a longer lead time and should be dealt with early in a project schedule. Due to the nature of real wood, clients should also be prepared to provide a control sample and request project-specific submittals for approval prior to fabrication.

Environment and Installation

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

Decoustics Rondolo® Baffles

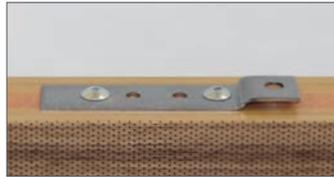
Mounting Methods

Only handle baffles wearing clean, lightweight, white gloves during installation. Installing contractor to supply all suspension components including ceiling anchors, hanger wire, cable or chain, fasteners, T-Bar grid, and similar hardware.

For Eye Bolt suspension baffles are supplied with factory installed threaded nut inserts for field installation. DPC-3 Clip, T-Bar Twist Clip or D-Ring can be field installed on the top edge of the baffle. Factory supplied DPC-3 clips can be used to join & align two baffles for a series application. Note that some mounting methods will have weight restrictions. Please consult Decoustics for more information.



Eye Bolt



DPC-3 Clip



T-Bar Twist Clip



D-Ring

Install alignment pin (where required) and adjust as necessary to maintain consistent alignment of joints and finished baffle faces.

Do not field cut baffles. Continuous MDF edge allows for field re-location of mounting clips.

After Installation - Maintenance Requirements

Rondolo® High Performance Acoustic Wood Baffles are manufactured using real wood veneers and engineered wood components and therefore should be cared for as all other architectural wood products. 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 very 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; in low humidity wood 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.

For repair of fractured or badly damaged panels, consult Decoustics for advice.

Acoustical Data (ASTM E795 Type-J)

Test specimen baffles were mounted using 4 different sets of spacing: i.e. 3" (76mm), 6" (152mm), 12" (305mm) and 18" (457mm). All baffles were suspended in parallel rows in the test chamber as per ASTM E795 Type-J.

Sound absorption is calculated in Sabins per unit. NRC levels may vary based on square footage, spacing and shape of the baffles. NRC levels of up to 0.6 can be reached, please contact an acoustical consultant or Decoustics.

FINISH	BAFFLE DIMENSIONS	SPACING (Height of Baffle : Spacing between Baffles)	SABINS FREQUENCY (Hz)					
			125	250	500	1000	2000	4000
Rondolo® Baffle	Height 6" x Length 96" x Thickness 1.5"	1:0.5	0.96	3.00	4.56	3.72	3.84	3.36
		1:1	0.85	3.51	5.45	4.97	5.33	4.97
		1:2	1.21	1.70	4.60	9.20	7.51	6.66
		1:3	2.06	4.72	7.51	8.60	7.63	6.90

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.

* Adding acoustical conventional ceiling tile will increase the overall acoustic performance.



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