



## DESIGN AND SPECIFICATIONS

### Description

Solo is an acoustical wood plank product consisting of a perforated medium density fire rated fiberboard (MDF) with a ribbed natural wood veneer laminated to the face and an acoustically transparent black mat laminated to the back side (prevents insulation color from reading through). The MDF core is available in a No Added Urea Formaldehyde (NAUF) standard core or CARB II compliant dark core. The plank is cut to fit on site and is typically installed on wood or steel furring 24" (610mm) on center with insulation placed behind the panel. The plank width measures 7-9/16" (192 mm) wide x 120" (3050mm) long. The planks have a tongue and groove edge which is blind nailed to wood or screwed to a steel furring channel using a side mounting clip to provide a monolithic looking joint.

**PROFILES:** There are three design profiles available. Solo-8 with the grooves 5/16" (8mm) o.c., Solo-16 with grooves 5/8" (16mm) o.c. and Solo-32 with grooves at 1-1/4" (32mm) o.c.

These profiles provide the same acoustic performance for the same thickness insulation.

Solo is available in Beech, Cherry, Maple, and Ash veneers (quarter cut and pre lacquered), and paint finishes. Other finishes can be accommodated. Standard length is 120" (3050mm).

### Standards, Tests & Approvals

**FIRE:** Solo planks are Class A per ASTM E-84 and CAN-ULC S102 with a flame spread of 25 or less. In its painted format, Solo planks are Class A per ASTM E-84 with a flame spread of 25 or less. The lacquer finish applied is a fire retardant version.

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.

*Note: Solo is a dimensionally metric product. Imperial dimension equivalents stated in this document are rounded to the nearest fraction. When calculating exact equivalent dimensions, divide the metric (mm) dimension by 25.4.*

### Features And Advantages:

Specialized water-based, low VOC, fire retardant lacquer

Although the percentage of open area of Solo is approx. 6.0%, the unique v-grooves create a two sided "funnel" effect that allows sound to be absorbed at a variety of angles thereby focussing the transfer of energy over a broader surface area of absorption material.

Absorption characteristics can be modified by changing the substrate thickness.

Planks can be cut using traditional woodworking tools.

### Additional Product Information

**ORDERING:** Standard lead time is 4 weeks for most small to medium sized orders. Large or custom projects may require longer lead times.

**SAMPLES:** Samples should be approved based on the finished product and not just a sample of veneer. 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.

**TRIM OPTIONS:** Refer to Decoustics Wood Brochure.

**PANEL WEIGHT:** A Solo plank having an overall thickness of 21/32" (nom 16.5mm) weighs an average of 2 lbs. per sq. ft. (9.75 kg/m<sup>2</sup>).

**SUGGESTED TOOLS:** Traditional woodworking tools are suitable for cutting Solo. Decoustics recommends using large diameter chop saws or radial saws having a carbide blade with a sharp, thin-kerf, 80 tooth - at 10" (254mm) diameter - and alternating 40° bevel. Cut plank with face up to avoid scratching.

*Note: A traditional table saw would require the plank to be cut much slower to avoid tearout or chipping. If cutouts are required for round fixtures, Decoustics recommends a router and template method using a quality spiral-down carbide flute cutting bit.*

# Decoustics Solo™ Wood Plank

**INSTALLATION:** Solo should be installed by qualified finish carpenters in accordance with the Millwork and Acoustical Sections of the specification. Proper tools and construction skills should be employed.

**ENVIRONMENT:** Solo planks 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)) Solo planks must be allowed to stabilize on site for 72 hours prior to installation.

## Design Consideration

**PAINTED FINISHES:** Solo can be painted to match most RAL standard colors, with RAL 9010 White readily available within stated ordering lead times.

**STAINED FINISHES:** Solo is available pre-finished with a lacquer or stain, or left unfinished. Decoustics can provide custom stained planks to match other finishes if an acceptable sample finish is supplied to Decoustics.

*Cautionary Note: In the wood finished carpentry industry, low grade veneers are often substituted and stained to simulate a higher cost veneer. Staining veneers are frequently birch, white oak or maple. Also cherry is often stained to "force" aging which would occur naturally over a longer period of time. Typically this practice is specified and not used as a substitute method to lower the price of a product. Custom staining a standard veneer generally adds 15% to 20% to the overall price of a standard Solo plank.*

**CURVED PANELS:** Solo cannot be curved, however the plank can be indexed or stepped around a gentle radius to simulate the appearance of a curve i.e. on a radius greater than 16'-4" (5000mm).

## After Installation - Maintenance Requirements

Solo Acoustic Wood planks 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.

For repair of fractured or badly damaged planks, consult the factory for advice.

*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.*

## Acoustical Data (ASTM C423: Type F5 Mounting as per ASTM E795).

FINISH	PANEL THICKNESS	FREQUENCY (Hz)						NRC	SAA
		125	250	500	1000	2000	4000		
<b>Type A Mounting</b>									
Solo-8	5/8" (16mm) Plank Core 1" (25mm)*	0.21	0.48	1.12	1.02	0.69	0.58	0.85	0.84
Solo-8	5/8" (16mm) Plank 2" (50mm)	0.58	0.86	1.21	1.00	0.75	0.61	0.95	0.97
<b>Type E400 Mounting</b>									
Solo-8	5/8" (16mm) Plank Core 1" (25mm)*	0.71	0.88	0.86	0.89	0.70	0.71	0.85	0.81
Solo-8	2" (50mm)	0.76	0.97	1.12	1.01	0.77	0.68	0.95	0.94

*Panels mounted 25mm (1") from the floor*



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