

KEY-LENA data sheet

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E0 MDF (medium density fibre) MR MDF (moister resistance)

KEY-LENA architectural panels are available in a wide range of pre-finished options and can be tailored to suit any environment. KEY-LENA architectural panels are custom manufactured for precise design criteria and acoustic solutions.

Excellent choice for feature panels.

KEY-LENA material description:

E0 MDF (Medium Density Fibre) is an engineered wood product manufactured from wood fibre's and adhered together with resin. It has a smooth and fine surface making it ideal for shaping and routing. Its surface quality can be painted to achieve a high quality finish. E0 MDF is low in formaldehyde emissions and manufactured to comply with Australian New Zealand standards.

MR MDF is a special type of MDF manufactured with a water-resistant resin. It is suitable for areas subject to humidity.

KEY-LENA product description:

KEY-LENA is a versatile product that offers a wide selection of perforation options and pre-finished selections. KEY-LENA is suitable for commercial and residential applications and can be tailored for specific appearances.

Recommendations:

Keystone Acoustics recommends KEY-LENA acoustic or decorative panels be manufactured and supplied as the complete pre-finished package.

K100 acoustic textile backing shall be factory applied to rear of panels to enhance acoustic performance.

Material sizes and thickness:

Standard dimensions generally available are:

Length	2400 & 2700 & 3600		
Width	900 & 1200 & 1800mm		
Thickness	9mm	12mm	16mm

Ceiling Tiles:

Length	595 & 1195mm		
Width	595mm		
Thickness	9mm	12mm	16mm

* Custom sizes available, consult Keystone Acoustics.

Features and Benefits:

- ✓ Large selection of decorative finishes
- ✓ High degree of strength
- ✓ Excellent machining capabilities
- ✓ Large panels sizes

Finishes:

- ✓ Natural timber & reconstituted veneers finishes to your specification
- ✓ Polyurethane 2 Pac paint finishes in your selected colour - matt, satin & full gloss finish
- ✓ Polyurethane 2 Pac paint finishes in metallic or pearl – matt, satin & full gloss
- ✓ Laminated finishes to your specification

Note: Matt is non-gloss
Satin is 30% gloss (recommended)
Full gloss is 60-100% gloss finish

Variations:

- ✓ Custom patterns available, see KEY-DESIGNA or contact Keystone Acoustics
- ✓ Cut to size to suit
- ✓ Edge profiles: rebate, chamfer, grooved options - consult Keystone Acoustics
- ✓ Decorative edging finishing options

Fixing Systems:

- ✓ Ceiling panels can be fixed by standard Key Lock Rondo system or similar
- ✓ Wall panels fixed to furring channels
- ✓ Screw fixed through face panel
- ✓ Split battens fixed to rear of panels – wall panels only

Installation:

Panels to be installed by builder or nominated contractor. Keystone Acoustic to manufacture and supply panels only.

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This is a general guide only for residential or commercial applications.

- Panels can be face fixed using appropriate fasteners into furring channels, wall studs or ceiling battens to appropriate spacing's.
- Finishing nails can be used and holes filled with timber putty or alternatively screw-heads can be used as a feature with neat spacing set-outs.
- Panels can be installed with express joints with 10mm clearance or to nominated clearance specified by builder or architect/designer.
- Panels can be square edge and butt jointed together or can be manufactured with a bevel edge to all four sides or nominated edges and butted together.

All materials will be packed or crated appropriately and with care for delivered to site as per delivery instruction by customer.

KEY-LENA specification guide:

Keystone Acoustics offers various standard options in perforation patterns and layouts. Different perforation hole sizes and patterns produce different acoustic results. Follow the open area acoustic guide to find the most appropriate perforation and pattern -consult Keystone Acoustic.

Modular type: (Perforated panels only)

- 1M - full sheets
- 2M - two banks of perforations
- 3M - three banks of perforations
- 4M - four banks of perforations
- 4MR – four banks of perforations
- 8M – eight banks of perforations

See diagram of standard modular patterns.

Perforation Patterns: KP

- KP1 - Diamond
- KP2 - Rectangular Diamond – Vertical
- KP3 - Square
- KP4 - Rectangular
- KP5 - Rectangular diamond – Horizontal

See diagram of standard patterns available.

Slotted Patterns: KS

- KS1 - One row of slot - recommended for ceiling tiles only, Consult Keystone Acoustics
- KS2 - Two rows of slots
- KS3 - Three rows of slots
- KS4 - Four rows of slots
- KS5 - Five rows of slots
- KS6 – Custom, consult Keystone Acoustics

See slot layouts.

Code: S/D/B

- S _____ from centre of one slot to centre of next slot
- D _____ slot diameter
- B _____ border/margin

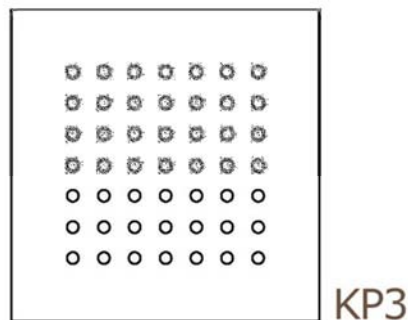
HOW TO SPECIFY: Step by Step Guide - PERFORATION

Code: KP_ S/D/M/B

i.e. **KP3 15/6/1M/50B**

Step 1.

Nominate perforation pattern type
i.e. KP3



Step 2.

Nominate distance between each perforation, this is the distance between the centre of one hole to the centre of the next hole.
i.e. **S** 20mm center's

Step 3.

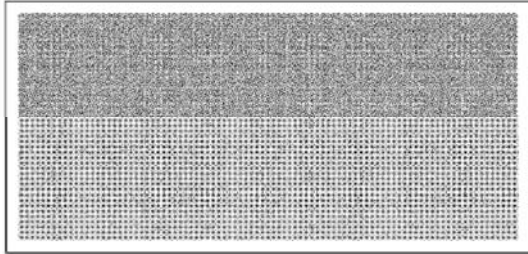
Nominate hole diameter.
i.e. **D** 6mm diameter

Step 4.

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Nominate modular type.

i.e. 1M

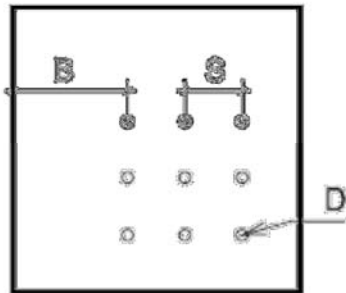


Typical 1M Module

Step 5.

Dimensions are from the edge of panel to the centre of the first hole.

i.e. **B** 50mm - standard border dimension (For other border options available, consult Keystone Acoustics)



EXAMPLE: Written as the following

- Material: KEY-LENA E0 MDF substrate
- Code: **KP3 20/6/1M/50B** standard Keystone Acoustic perforation pattern
- Finish: KEY-TONE 'Dulux' White on White satin paint finish to face and edge of panels
- Backing: K100 black textile acoustic backing factory applied to rear of panels
- Sheet size: Standard sheet 2400 x 1200 - final dimensions supplied by installer
- Edge detail: Square edge - for butt joint

HOW TO SPECIFY: Step by Step Guide – SLOTTED

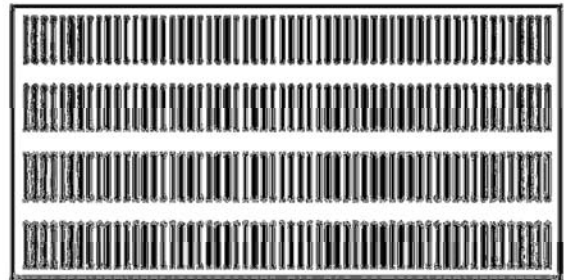
Code: KS S/D/B

i.e. **KS4 40/8/50B**

Step 1.

Nominate slot type

i.e. KS4



KS4 LAYOUT

Step 2.

Nominate distance between each slot, this is the distance between the centre of one slot to the centre of the next.

i.e. **S** 40mm centre's

Step 3.

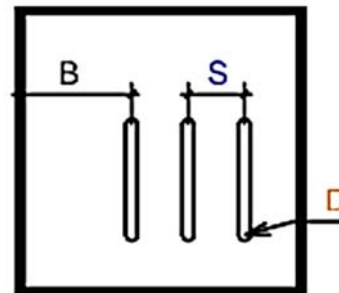
Nominate slot width.

i.e. **D** 8mm diameter slot width

Step 4.

Border dimensions are from the edge of panel to the centre of the first slot.

i.e. **B** 50mm - set border dimension (for other border options consult Keystone Acoustics)



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EXAMPLE: Written as the following

Material: KEY-LENA E0 MDF substrate
 Code: **KS4 40/8/50B** standard Keystone
 Acoustic slot pattern
 Finish: KEY-TONE 'Dulux' White on White satin
 paint finish to face and edge of panels
 Backing: K100 black textile acoustic backing
 factory applied to rear of panels
 Sheet size: Standard sheet 2400 x 1200 - final
 dimensions supplied by installer
 Edge detail: Square edge

General:

- See The Open Area Guide for all materials
- Contact Keystone Acoustics to further discuss your acoustic or design requirements – (02) 9604 88 13

HOW TO SPECIFY: Step by Step Guide – From the Open Area Guide

See following page for example table

- All open areas calculated on **1M type** (fully perforation sheet)
- Based on 2400mm x 1200mm
- Borders set at 50mm (with the exception to KEY-BOARD plasterboard)
- All dimensions are in mm

Example: Perforation

Product: KEY-LENA MDF substrate

Open Area: To achieve 14%

Example: Slot

Product: KEY- LENA MDF substrate

Open Area: To achieve 13%

Step 1.

Select nominate perforation pattern type or slot layout.

i.e. KP3 or KS4

Step 2.

Look at Open Area table

i.e. KP3 or KS4

Step 3.

Find the required percentage within the table

Step 4.

Spacing **S** on top row in Blue.

i.e. **KP3 – S** = 20mm as indicated in yellow

i.e. **KS4 – S** = 40mm as indicated in yellow

Step 5.

Diameter **D** on the left in Red.

i.e. **KP3 – D** = 9mm as indicated in yellow

i.e. **KS4 – D** = 8mm as indicated in yellow

Example Open Area Guide:
PERFORATED:

KP TYPE 3		HOLE SPACING (S)					
		12.5	15	20	25	30	50
HOLE SIZE (D)	5mm DIA	11.2%	7.6%				
	6mm DIA	16.2%	11.0%	6.5%			
	7mm DIA	22.0%	14.9%	8.7%			
	9mm DIA		24.7%	14.3%	9.2%	6.3%	
	10mm DIA			17.7%	11.4%	7.8%	
	12mm DIA			25.5%	16.4%	11.2%	4.2%

SLOTTED:

KS TYPE 4		SLOT SPACING (S)					
		25	30	40	50	60	75
SLOT WIDTH (D)	6mm DIA	15.4%	12.8%	9.8%	7.8%	6.5%	5.1%
	8mm DIA	20.5%	17.0%	13.0%	10.4%	8.6%	6.8%
	10mm DIA	25.6%	21.2%	16.2%	12.9%	10.7%	8.5%
	13mm DIA		27.4%	21.0%	16.7%	13.9%	11.3%