

KEY-NIRVANA data sheet

1.1

Pre-finish decorative MDF panels

KEY-NIRVANA architectural panels are available in a wide range of pre-finished colours and patterns. KEY-NIRVANA panels are custom manufactured for precise design criteria and acoustic solutions. Excellent choice as an economical panel

KEY-NIRVANA description:

KEY-NIRVANA has an MFD substrate and is available in various thicknesses and sheet sizes. It has a vinyl or concept veneer finish that is the best in its field and unlike other concept vinyl's Key-Nirvana range will not peel away from its substrate or mark easy from tapes. Our selection offers realistic timber grain and coloured finishes allowing the designer to achieve a creative and esthetically please space.

Recommendations:

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

KEY-NIRVANA panels should be supplied with K100 textile backing for added acoustic performance with an NRC rating of up to 0.08.

Material sizes and thickness:

Standard dimensions generally available are:

Length	2400 & 2700 & 3000			
Width	1200mm			
Thickness	9mm	12mm	16mm	18mm

Ceiling Tiles:

Length	595 & 1195mm			
Width	595mm			
Thickness	9mm	12mm	16mm	18mm

* Custom sizes available, consult Keystone Acoustics.

Features and Benefits:

- ✓ Numerous perforating slotting and shaping options
- ✓ Easy maintenance and cleaning
- ✓ Quality finish
- ✓ Matching edging available
- ✓ Environmentally friendly – requires no solvent finish resulting in low VOC emissions

Finishes:

- ✓ Appearance of natural timber veneer without the gain or colour variations of a natural timber veneers
- ✓ Nine timber grain finished available:
 - ✓ Honey Maple
 - ✓ Latte
 - ✓ Golden Beige
 - ✓ Caramel Beech
 - ✓ Mocca
 - ✓ Russet Bronze
 - ✓ Bright Terracotta
 - ✓ Ebony Grain
 - ✓ Ivory Ash

No pre-finishing required saving time and money.

Variations:

Perforation module types can be customized to suit.
 Custom patterns available (see KEY-DESIGNA or contact Keystone Acoustics)
 Un-perforated borders custom to suit.
 Cut to size to suit
 Edge details - see edge details doc. or consult Keystone Acoustics.

Fixing Systems:

- ✓ Ceiling panels can be fixed by standard Key Lock Rondo system or similar
- ✓ Two way T-bar grid ceiling
- ✓ Wall panels fixed to furring channels
- ✓ Direct fixed with Stainless steel screw or colour matched screws
- ✓ Split battens fixed to rear of panels – wall panels only.

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Installation:

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

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-Nirvana specification:

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 rotated
- 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/M/B

- S _____ spacing from centre to centre
- D _____ hole size
- M _____ modular type is appropriate
- B _____ border

See acoustic open area guide.

HOW TO SPECIFY: Step by Step Guide - Perforation

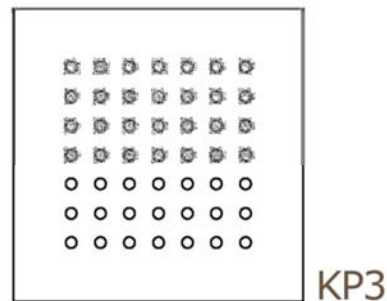
Code: S/D/M/B

KP3 15/6/1M/50B

Step 1.

Nominate perforation pattern type

- i.e. KP3



Step 2.

Nominate distance between each perforation, this is the diameter between the centre of one hole to the centre of the next hole.

- i.e. S 20mm center's

Step 3.

Nominate hole size.

- i.e. D 6mm diameter

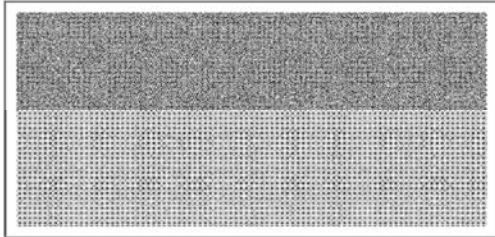
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Step 4.

Nominate modular type.

- i.e. 1M

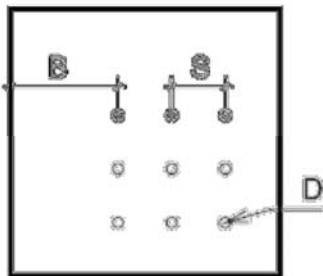


Typical 1M Module

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-NIRVANA12mm
 Code: **KP3 15/6/1M/50B** standard Keystone Acoustic perforation pattern
 Finish: KEY-FINISH 'Honey Maple'
 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 Panel

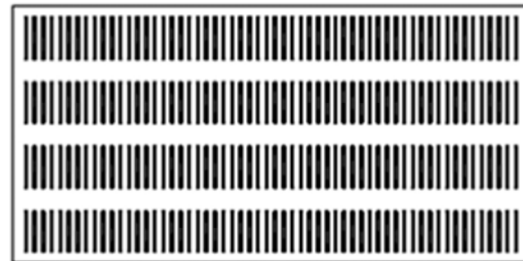
Code: S/D/B

KS4 40/8/50B

Step 1.

Nominate slot type

- i.e. KS4



KS4 LAYOUT

Step 2.

Nominate distance between each slot, this is the diameter 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)

EXAMPLE: Written as the following

Material: KEY-NIRVANA 12mm
 Code: **KS4 40/8/50B** standard Keystone Acoustic slot pattern
 Finish: KEY-FINISH 'Honey Maple'
 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

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

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-NIRVANA

Open Area: To achieve 14%

Example: Slot

Product: KEY-NIRVANA

Open Area: To achieve 13%

Step 1.

Select nominate perforation pattern type or slot layout

- i.e. KP3 or KS4

Step 2.

Open area table for 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

Step 6.

Perforation specification can be written in the following formula:

- i.e. **KP3 S_ x D_**
= % open area percentage – as indicated in yellow
- i.e. **KS4 – D** = 8mm as indicated in yellow

PERFORATION TABLE

		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 TABLE

		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%