

Interior Linings

ECHOSTOP®



Description

Echostop® perforated plasterboard is designed to create a decorative finish whilst providing a high level of sound absorption to the space. Echostop perforated plasterboard is suitable for full ceiling installation or feature panels on internal walls or ceilings. Created for sound absorption treatment, Echostop is available in five stylish designs with either slotted, square or round perforations to suit multiple design applications.

Echostop contains a combination of FGD and recycled gypsum encased in 100% recycled paper and lined with black acoustic fabric.

Board Specification

| Feature | Description | | | | | | |
|------------------------|---|--------------|--|------------|---|-------------|--|
| Thickness | 12.5mm | | | | | | |
| Patterns | <table border="0"> <tr> <td>Slotted Hole</td> <td>101.5mm x 5mm (4 Grid Patterns/sheet) 82mm x 5mm (8 Block Patterns/sheet)</td> </tr> <tr> <td>Round Hole</td> <td>13.5mm 20x20 holes (8 Block Patterns/sheet) 6mm 33x33 holes (8 Block Patterns / sheet)</td> </tr> <tr> <td>Square Hole</td> <td>12mm 20x20 holes (8 Block Patterns / sheet)</td> </tr> </table> | Slotted Hole | 101.5mm x 5mm (4 Grid Patterns/sheet) 82mm x 5mm (8 Block Patterns/sheet) | Round Hole | 13.5mm 20x20 holes (8 Block Patterns/sheet) 6mm 33x33 holes (8 Block Patterns / sheet) | Square Hole | 12mm 20x20 holes (8 Block Patterns / sheet) |
| Slotted Hole | 101.5mm x 5mm (4 Grid Patterns/sheet) 82mm x 5mm (8 Block Patterns/sheet) | | | | | | |
| Round Hole | 13.5mm 20x20 holes (8 Block Patterns/sheet) 6mm 33x33 holes (8 Block Patterns / sheet) | | | | | | |
| Square Hole | 12mm 20x20 holes (8 Block Patterns / sheet) | | | | | | |
| Edge Profile | Recessed edge | | | | | | |
| Sheet Size | Refer to "Plasterboard Range Availability" (Knaufapac.com) | | | | | | |
| Paper Colour | Buff liner paper face/Black acoustic fabric backing | | | | | | |
| Open Area | 6mm – 8.5%, 12mm – 16%, 13.5mm – 16%, 82mm – 11%, 101.5mm – 11% | | | | | | |
| Mass | 10.0kg/m ² nominal | | | | | | |
| Fire Hazard Properties | Group 1 – in accordance with BCA Specification C1.10a Fire Hazard Properties – Floors, Walls and Ceilings. | | | | | | |
| Combustibility | Non Combustible material as defined in BCA Deem-to-Satisfy Provisions C1.12 | | | | | | |
| VOC | Less than 0.5mg/m ³ TVOC | | | | | | |

Advantages

- Sound absorptive acoustic fabric also acts as a dust barrier
- Reduce reverberation
- A selection of perforations to suit design requirements
- Decorative
- Simple installation

Decorative

- Available in five stylish designs with either slotted, square or round perforations to suit multiple design applications.
- Suitable for internal wall and ceiling applications.



Performance Details

Acoustic

Echostop® has been extensively tested in a ‘full scale reverberation chamber’ to AS ISO 354-2006. The table below outlines the different airgaps and insulation tested together with the and NRC rating achieved. Copies of the test reports can be supplied upon request.

| Table 1 | Perforation | Open Area | Insulation | Plenum / Air Gap | α^w | NRC | RMIT Test Report |
|---|-----------------------------|-----------|---|------------------|------------|------|------------------|
|  | 82mm Slotted Rectangular | 11% | *50G14 | 50mm | 0.40(LM) | 0.70 | 12-041/JW |
| | | 11% | *90G14 | 90mm | 0.40(LM) | 0.65 | 12-040/JW |
| | | 11% | *90G14 | 400mm | 0.45(LM) | 0.65 | 12-046/JW |
| | | 11% | *90G14 | 700mm | 0.50(LM) | 0.60 | 12-056/JW |
|  | 101.5mm Slotted Rectangular | 11% | *90G14 | 400mm | 0.45(LM) | 0.65 | 12-047/JW |
| | | 11% | *90G14 | 700mm | 0.50(LM) | 0.65 | 12-054/JW |
|  | 12mm Square Hole | 16% | *90G14 | 90mm | 0.60(LM) | 0.80 | 12-038/JW |
| | | 16% | *90G14 | 400mm | 0.60(LM) | 0.75 | 12-045/JW |
| | | 16% | *90G14 | 700mm | 0.60(LM) | 0.75 | 12-053/JW |
|  | 6mm Round Hole | 8.5% | *90G14 | 400mm | 0.45(LM) | 0.65 | 12-043/JW |
| | | 8.5% | *90G14 | 700mm | 0.50(L) | 0.65 | 12-052/JW |
|  | 13.5mm Round Hole | 16% | Refer to 12mm Square Hole as an indication of acoustic result attainable. | | | | |

* 50/90mm 14kg/m³ Glasswool by Fletcher Insulation.

Installation

Recommended Installation of Echostop® can be found in “Layout Guide and Installation details” which is available at knaufapac.com/au/echostop or call TecASSIST™ on **1800 811 222**.

Sustainability

Echostop® products are manufactured from a combination of FGD gypsum and paper liner made from 100% reclaimed and recycled paper waste. Lightweight plasterboard construction offers the benefits of low embodied energy, non-toxic materials, enhanced indoor air quality, and ease of thermal and acoustic upgrading.

Internal Sound Levels

Echostop®, when used in the design for reverberation control, can assist in achieving the required speech intelligibility criterion. It is strongly recommended to use this single-number rating in combination with the complete sound absorption coefficient data that can be obtained on request.

References

Refer to knaufapac.com/au/echostop for Material Safety Data Sheet, Volatile Organic Compound Emission details and other additional information.

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