

# PROTONE 12MM SQUARE PERFORATED PLASTERBOARD (41)

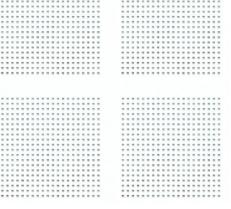
- Protone 12mm Square is a superior acoustic solution that delivers a grid-format geometric effect and enhanced indoor air quality due to its Activ'Air technology.
- High levels of acoustic absorption are achieved through a combination of perforation patterns and a highly effective white acoustic fabric backing which also prevents dust from the ceiling entering the room and masks the ceiling framework.
- All four edges of Protone perforated plasterboards are recessed to make flush jointing quicker and easier without the need for butt joints between full panels.
- The availability of seamless access panels, ensures easy access to the ceiling cavity while maintaining pattern continuity.
- Protone 12mm Square features eight large square groupings per sheet, each with 400 x 12mm square perforations at 25mm centres, providing a 16% open area.

### **RECOMMENDED USE**

- Non-fire rated ceiling and wall applications.
- Commercial construction.
- Use where a high level of acoustic performance is required such as theatres, restaurants, shopping centres and hotel foyers.

#### **SPECIFICATIONS**

Feature	Description				
Thickness	12.5mm				
Mass	8kg/m2				
Perforated Pattern	12mm Square				
Open Area	16%				
Acoustic Fabric	White				
Widths	1200mm				
Lengths	2400mm				
Edge Profiles	Recessed Edge				
Fire Hazard Properties <sup>△</sup>	Group No = 1 SMOGRARC ≤100m2/s2				
Combustibility*	Plasterboard may be used wherever a non-combustible material is required				



# **Product Features**



## Acoustics

Absorbs sound into ceiling to prevent reverberation.



## **Aesthetics**

Acoustic performance with design freedom



# Activ'Air Technology

Uses Activ'Air technology for cleaner air



## International Alliance

Delivered through the International Alliance Program





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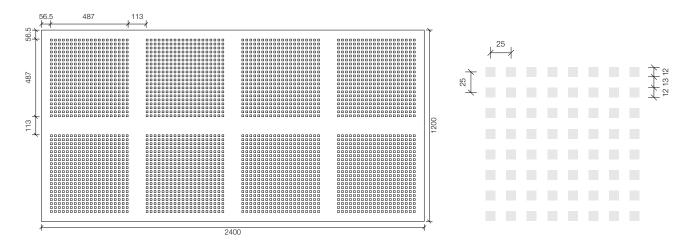


#### PROTONE INSTALLATION

- Protone perforated products are screw fixed to suspended concealed grid, or direct fixed to framing.
- The joints are finished with a three coat jointing system and sanded smooth prior to decoration.
- The sheets are installed with the long edges at right angles to the direction of the framing with maximum 600mm centres.
- Insulation is limited to 50mm thick and 14kg/m3 density.
- Full installation and finishing details can be found in the Perforated Plasterboard Installation Guide available from www.potters.co.nz.

#### **PAINTING**

- After the joints are completed, the surface of the
  plasterboard is painted in accordance with the paint
  manufacturer's specifications using a paint roller, taking care
  to paint the surface only, and not the voids.
- Long nap and heavily loaded paint rollers should be avoided for this reason. Spray painting is NOT permitted as paint will impair the acoustic tissue degrading the acoustic properties.
- Water-based paints are required for boards that contain Activ'Air technology. Repainting will not impact the performance of Activ'Air.



## **NRC VALUE SUMMARY**

Square 12mm 16% open area				Sound Absorption Coefficient						
Plenum	Plenum	αw	NRC	Octave Band Centre Frequencies (Hz)						
(Air Cavity)	Insulation			125	250	500	1000	2000	4000	
65mm	Empty	0.55	0.55	0.20	0.35	0.55	0.75	0.60	0.40	
	50mm glasswool (14kg/m³)	0.70	0.70	0.40	0.65	0.80	0.70	0.65	0.55	
200mm	Empty	0.60(L)	0.65	0.60	0.70	0.75	0.55	0.55	0.55	
	50mm glasswool (14kg/m³)	0.70	0.70	0.65	0.70	0.70	0.65	0.65	0.60	
600mm	Empty	0.65(L)	0.65	0.65	0.70	0.65	0.60	0.60	0.65	
	50mm glasswool (14kg/m³)	0.70	0.70	0.70	0.65	0.70	0.70	0.70	0.70	

Bold values are report data conducted at the Auckland University acoustic laboratory that apply to the non-flexible options only. All other values are acoustic predictions by PKA Acoustic Consulting. (L) denotes excess performance at 250 Hz.

### MANUFACTURING TOLERANCES

- Nominal Thickness 12.5mm +/- 0.3mm
- Nominal Widths 1200mm +/- 3mm
- Nominal Lengths 2400mm +/- 3mm
- Squareness 90° +/- 1.5mm at 1200mm (short end)
- 12mm Square Minigrid is manufactured for Potter Interior Systems by worldwide plasterboard specialist Saint-Gobain.

# **INSTALLING TO STANDARDS**

Installing to Standards AS/NZS2589:
Gypsum linings – Application and Finishing outlines the procedures for jointing and finishing of plasterboard in conjunction with additional details contained in Potter Interior Systems Technical Literature.

# ACCESS PANELS

- Protone Access Panels are integrated into suspended ceilings to allow for inspection, service and maintenance work on the installations in the space above.
- There is an access panel solution for each pattern profile in the Protone range that provides easy access and integrates seamlessly into the ceiling.
- Access Panels are 600mm x 600mm including the frame with a 510mm x 510mm x 12.5mm hatch piece/opening measurement.
- The frame weight is 0.9kg and the hatch is approx 3.6kg.