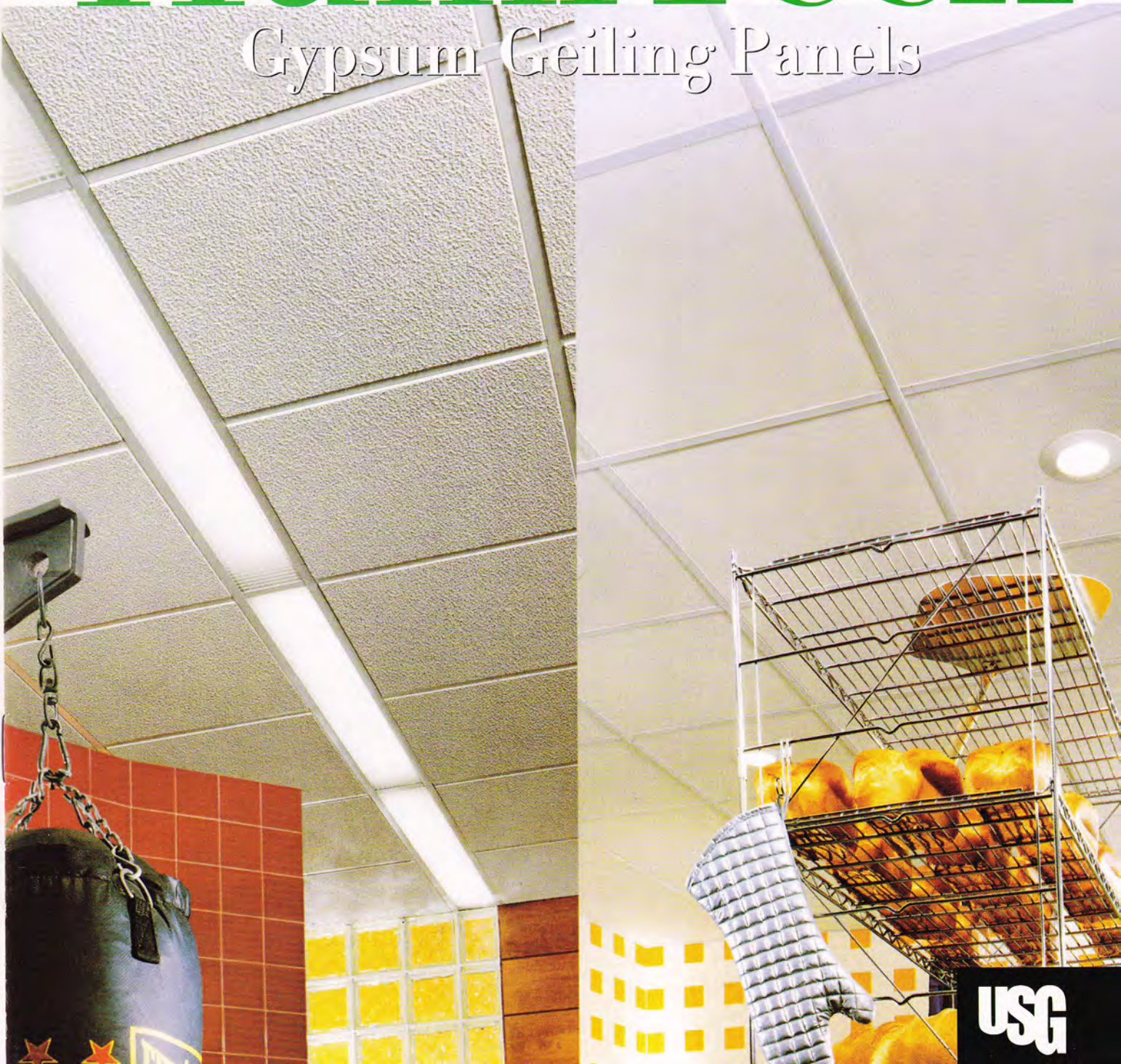


USG Middle East

HumiTech

Gypsum Ceiling Panels



USG

Worldwide Leadership in Ceilings

USG's goal is to be the number one ceilings company in the world, and this encompasses our leadership in the Middle East. In addition to a complete line of mineral fiber ceiling panels, USG Middle East also manufactures a range of suspension grid in its own facility in Dammam, Saudi Arabia.

Since 1986, this facility has supplied ceiling products for major building projects throughout Saudi Arabia, the Gulf States, and Europe.

New HumiTech Gypsum Ceiling Panels

To meet the varied needs of architects, contractors, and owners, USG Middle East now offers gypsum ceiling panels in 12 textured vinyl facings (120 micron thickness). All panels are available with PVC laminated backings.

HumiTech panels install quickly and economically in standard exposed grid systems.

Applications

HumiTech panels are designed for use in suspension grid systems in all types of commercial and institutional buildings including offices, retail shops, hospitals, and schools.

These specialized ceiling panels are specifically designed for high-humidity applications or projects requiring fire protection and chemical resistance. Examples are:

- Restaurants
- Kitchens
- Laboratories
- Recreation Facilities
- Washrooms
- Healthcare Facilities

In addition to standard interior applications, HumiTech panels can be used in protected outdoor environments such as covered entry-ways and parking garages.



Attractive Textured Facings

Moraine

Miami

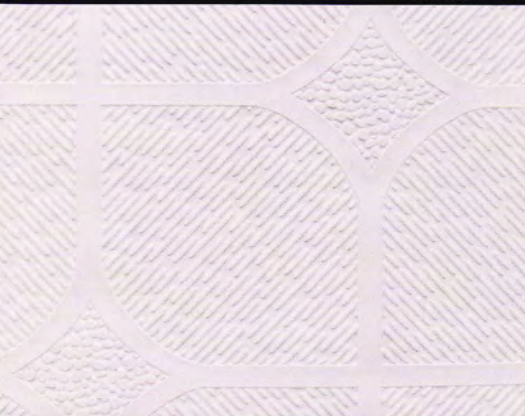
Valencia



Snowflake

Seville

Granada



Star Plus

Colorado

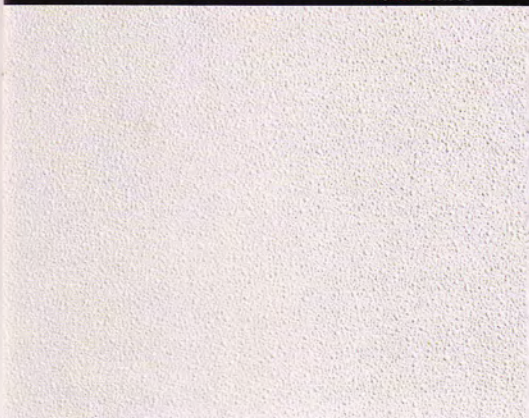
Napoli



Plain White

Mexico

Chex



HumiTech Features

Humidity Resistance

USG HumiTech panels are backed with PVC for optimum performance in high-humidity applications and climates.

Fire Protection

These ceiling panels have been tested to ASTM E.1264 and reaction to fire according to ASTM E.84. Flame spread 15 or less.

Chemical Resistance

The PVC films used as facings and backing are resistant to many chemicals but must not be exposed to organic solvents or oxidizing agents.

Microbial Resistance

HumiTech's PVC facings provide excellent resistance to the growth of mold, mildew, and other fungi.

Maintenance

The PVC facings are easy to clean. Just wipe with a mild detergent solution and rinse with clean water.

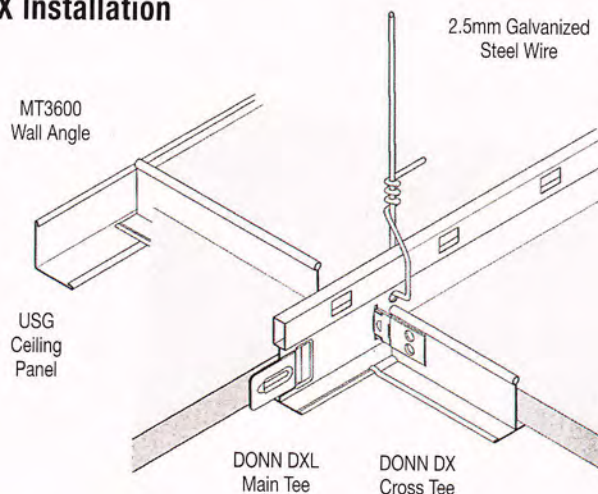
Sizes

HumiTech panels are available in 2' x 2' and 60 cm x 60 cm in $\frac{3}{8}$ " (9.5mm) thickness.

HumiTech Installation

A detailed plan is the most accurate method of determining quantities of various grid components and panels. Exact quantities can only be computed from accurate measurements of the space.

Typical DONN DX Installation



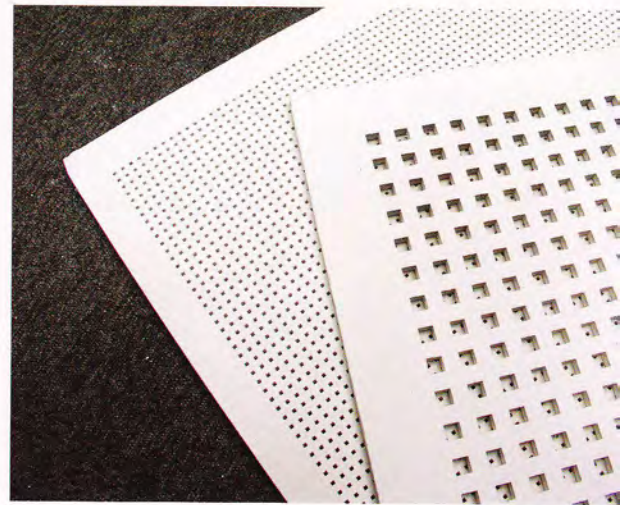
HumiTech Packaging Schedule

Size	Panels/ Carton	Cartons/ Pallet	M2/Carton		Quantity/ 40' Trailer (18 Pallets)
			Metric	Imperial	
2' x 2' and 60cm x 60cm:	6	88	2.16	2.23	1584.00



Perforated Gypsum Board

"Perforated Acoustical Gypsum Board", micro perforated 3 x 3 mm square hole comes with highly decorative values. Environmental friendly, Sound absorption function provides value to the gypsum applications and greatly enhances the performance of gypsum interior decoration. Perforated Acoustical Gypsum Board will provide architects with new creations in the designing world.



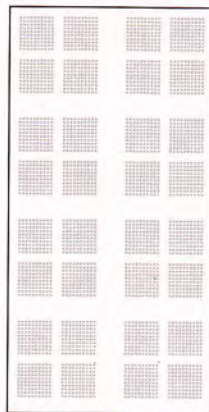
For Partitions and Ceilings

- 3 x 3mm Square Hole, 8.33mm C/C
- 12 x 12mm Square Hole, 25mm C/C
- 6mm diameter Square Hole, 15mm C/C

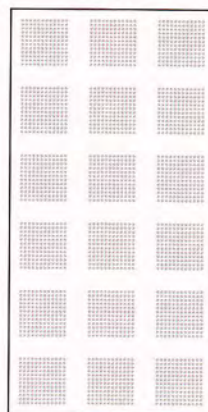
S1



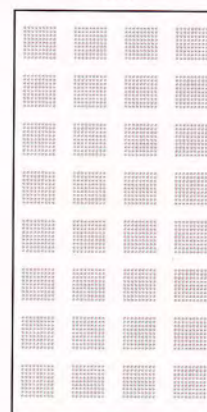
S2



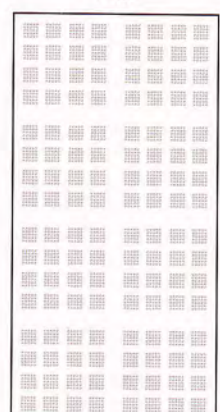
S3



S4



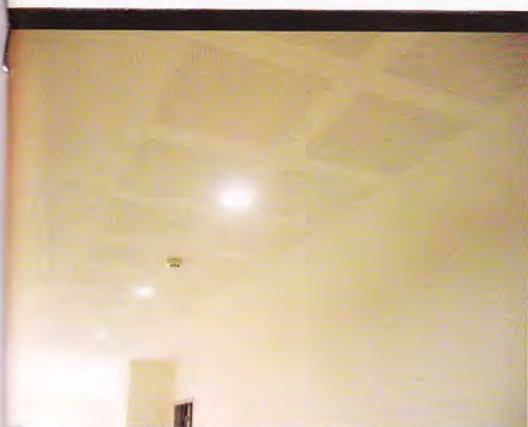
S5



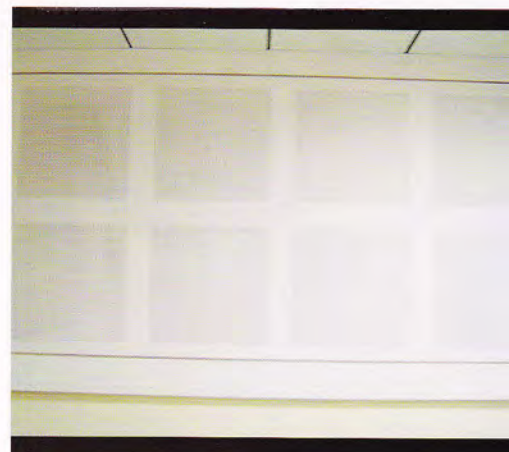
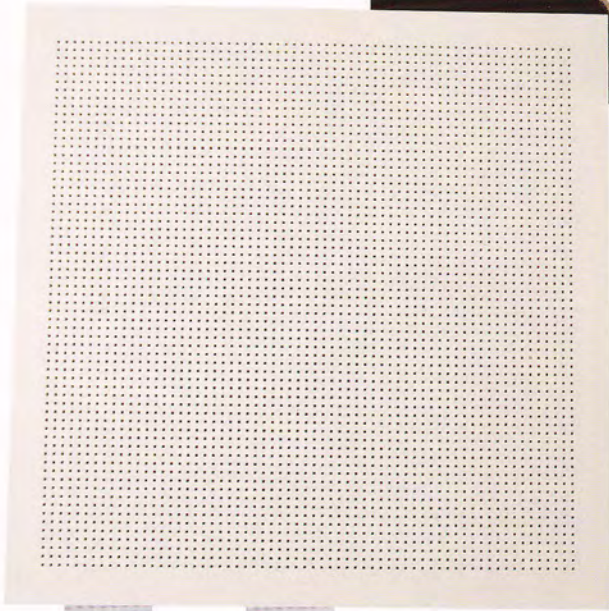
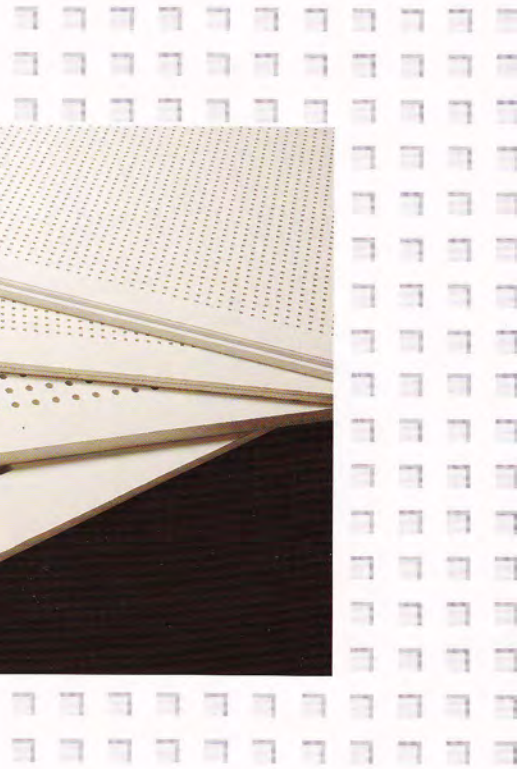
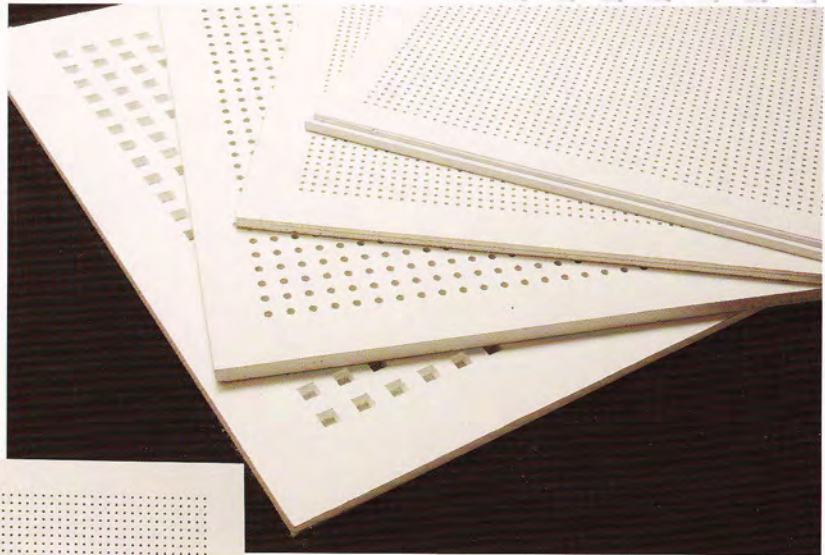
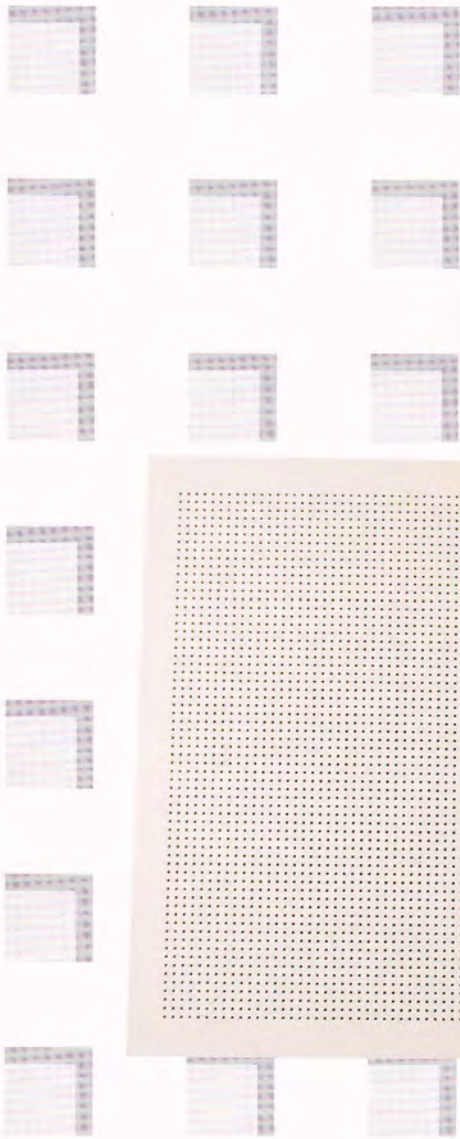
Specification:

Board	Thickness	Size	Packing	Pcs/20'Ctr.	Edge
3mm x 3mm Square Hole Perforation S1,S2,S4,S5 Patterns Available	9.5mm	1200mm x 2400mm	By Wooden Pallets	720	Straight
	12.5mm	1220mm x 2440mm	By Wooden Pallets	544	Tapered
12mm x 12mm Square Hole Perforation S1,S3,S4 Patterns Available	9.5mm	1200mm x 2400mm	By Wooden Pallets	720	Straight
	12.5mm		By Wooden Pallets	544	Tapered
	15mm	1220mm x 2440mm	By Wooden Pallets	440	Tapered
6mm Diameter Round Hole Perforation S1,S2,S3,S4,S5 Patterns Available	9.5mm	1200mm x 2400mm	By Wooden Pallets	720	Straight
	12.5mm		By Wooden Pallets	544	Tapered
	15mm	1220mm x 2440mm	By Wooden Pallets	440	Tapered

- * With Sound Absorbing Air Permeable Paper Backing.
- * Size - Both Metric System and Imperial System are available.
- * Perforated Percentage covered for 4' x 8' Board and Distance from hole to board edge
 3x3mm square hole: metric 7.84%, imperial 8.7%; metric 69.55mm, imperial 58.72mm
 12x12mm square hole: metric 16%, imperial 15.48%; metric 56.5mm, imperial 66.5mm
 6mm round hole: metric 8.55%, imperial 8.27%; metric 57mm, imperial 67mm



Perforated Gypsum Tiles for Ceiling



Specification:

Board	Thickness	Size	Packing	Pcs/20'Ctr.	Edge
3mm x 3mm Square Hole Perforation	9.5mm	600mm x 600mm	8pcs/CTN	8200	Straight
	12.5mm	610mm x 610mm	6pcs/CTN	6200	Straight/Tegular
12mm x 12mm Square Hole Square Hole Perforation	9.5mm	600mm x 600mm	8pcs/CTN	8200	Straight
	12.5mm	610mm x 610mm	6pcs/CTN	6200	Straight/Tegular
6mm Diameter Round Hole Perforation	9.5mm	600mm x 600mm	8pcs/CTN	8200	Straight
	12.5mm	610mm x 610mm	6pcs/CTN	6200	Straight/Tegular

* With Sound Absorbing Air Permeable Paper Backing.

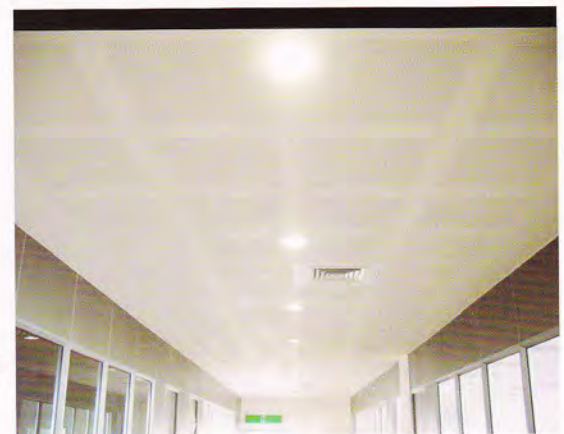
* Face Side is Painted White.

* Size - Both Metric System and Imperial System are available. (except for 12mm Square Hole 2' x 2' Imperial System)

Perforated Gypsum Board Physical Properties

A) Base Gypsum Board Physical Data (12mm ± 0.5mm)

Item	Test	Request Standard
Flexural Strength	Horizontal	36 lbs (min)
	Vertical	107 lbs (min)
Core, End and Edge Hardness		11 lbs (min)
Nail Pull Resistance		77 lbs (min)
Humidified Deflection		1.25 ins (max)
Flame Spread Classification		0
Smoke Developed Classification		10
Moisture Content		Under 3%
Fire Performance		Incombustibility Grade 1



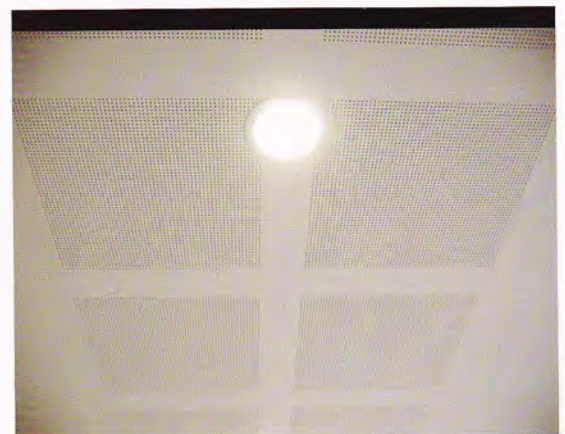
B) Perforated Gypsum Board Physical Data (12mm ± 0.5mm)

Item	Test	Test Results
Gypsum Board		Asbestos Free
Linear Expansivity		0.08%
Weather Resistance		Temperature 40 ± 2°C, RH 90 ± 5% 24 Hours no changes
Rate of Length Change with Moisture		Under 0.2%



Perforated Gypsum Board Technical Properties

1. No Sag, No Warp, Fire Rated, Heat Insulated, Sound Absorption
2. Certificate ASTM C423, CNS 9056 A3165 Tests Passed
Absorption Coefficient NRC = 0.80
Certificate Number: 950, 952, 954, 956
3. Perforated Percentage covered for 2' x 2' Board with
3x3mm square hole: metric 10.41%, imperial 10.13%
12x12mm square hole: metric 16.27%, imperial not available.
6mm round hole: metric 10.35%, imperial 10.08%
4. Distance from hole to board edge
2' x 2' board: 3mm square hole – metric 33.605mm, imperial 37.605mm
2' x 2' board: 12mm square hole – metric 54mm, imperial not available
2' x 2' board: 6mm round hole – metric 32mm, imperial 36mm



Perforated Gypsum Board Physical Properties

A) Base Gypsum Board Physical Data (12mm ± 0.5mm)

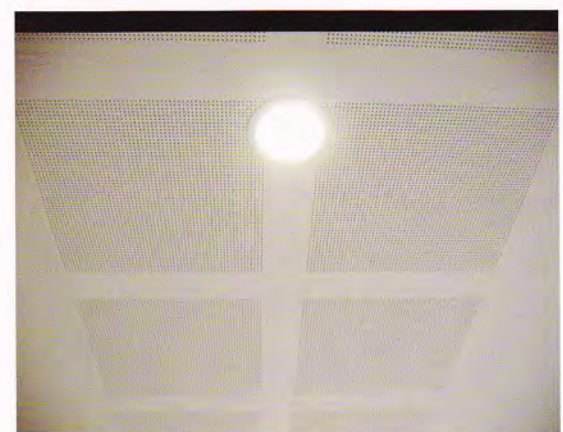
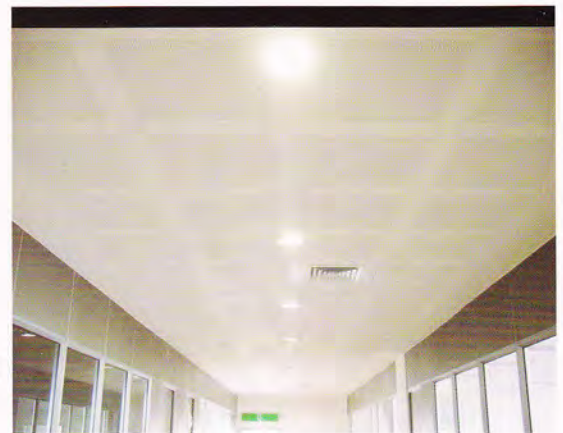
Item	Test	Request Standard
Flexural Strength	Horizontal	36 lbs (min)
	Vertical	107 lbs (min)
Core, End and Edge Hardness		11 lbs (min)
Nail Pull Resistance		77 lbs (min)
Humidified Deflection		1.25 ins (max)
Flame Spread Classification		0
Smoke Developed Classification		10
Moisture Content		Under 3%
Fire Performance		Incombustibility Grade 1

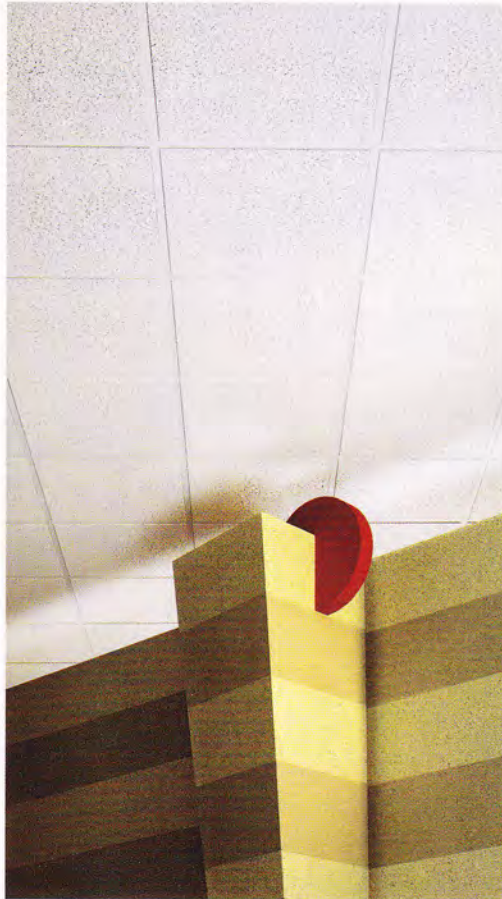
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