

# Classroom 60/40™

## High Sound Absorber/Reflector Ceiling System

Technical Data sheet



ASONA



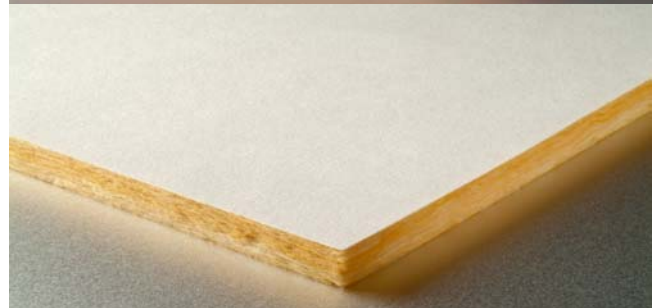
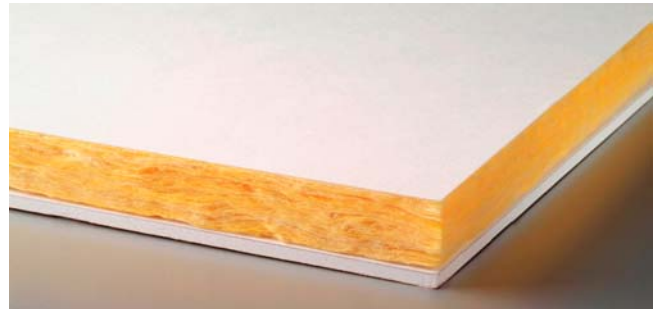
### Description.

Classroom 60/40™ is a made in NZ composite acoustic ceiling system designed for educational facilities where noise control is required to provide speech intelligibility and comfort.

Meets AS/NZ2107 standard recommendation for RT 0.4—0.5  
The system consists of an economical T24 suspension grid with soft Triton™ absorber and hard Diffusion™ reflector ceiling panels set out on the grid in a 60/40 ratio. For classrooms with metal roofing where rain noise attenuation and sound absorption is required Asona recommends the Triton Duo 60™ 60 mm thick composite absorber/ attenuator panels are used as they have sufficient mass to attenuate rain noise and a 50 mm thick absorber layer to provide broad band reverberation control. For classrooms where high mass is not required the lower cost Triton 25™ high sound absorber panels may be used. Diffusion™ hard reflector panels cover 40% of ceiling to provide early reflections that aid in speech intelligibility. All panels are finished with Sonatex™ composite facing for puncture resistance in a variety of colours and perforation finishes.

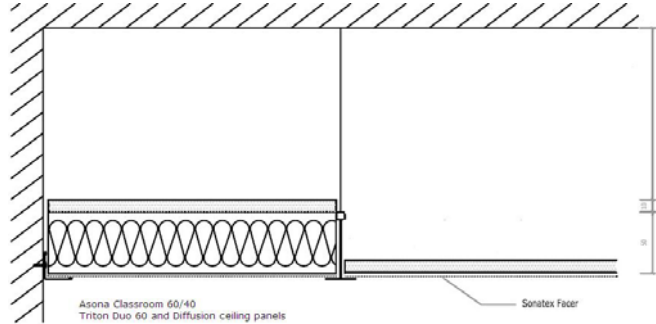
### Benefits.

- Ideal mix of broad band sound absorption and reflection to balance room acoustics. Not too 'dead' not too 'lively'.
- Meets ministry of education acoustic guidelines and AS/NZ 2107 standard, reverberation time RT 0.4-.5 seconds.
- High mass panels muffles rain noise under metal roofs, saves costs of additional ply sarking, PNC 47 at 40 mm/hr
- Durable Sonatex™ composite facing resists damage
- High light reflectance, clean white look, fast to install
- Made in NZ, short lead times, low embodied energy product. All panels can be renewed, saves on wastage to landfill.





Porirua School- Classroom 60/40 with Sonaris facing



## Technical Specifications

Panel	#item	αW	Panel Size
Triton Duo 60™	TD60.0612	1.00	60 x 600 x 1200 mm
Triton 25™	TR25.1206	1.00	1200 x 600 x 25 mm
Diffusion™	DF12.1206	0.15	1200 x 600 x 12 mm

### Sound Absorption Rating:

Triton Duo 60 αW1.00; NRC 0.95; STC 22.  
 Predicted rain noise level @ 40 mm /hr = PNC 47  
 Triton 25 αW 1.00; NRC 0.95  
 Diffusion αW 0.15; NRC 0.10 per ASTM C423, ISO 354 E-200

Panel	Hz	125	250	500	1000	2000	4000
Triton Duo 60	αp	0.50	0.70	1.00	1.00	1.00	0.95
Triton 25	αp	0.55	0.85	1.00	0.95	1.00	1.00
Diffusion	αp	0.20	0.10	0.05	0.05	0.15	0.20
60/40	αp	0.60	0.60	0.70	0.65	0.70	0.70

### Accessibility:

All panels are demountable and accessible

### Back loading:

Max. 1.5 kg/m<sup>2</sup>, point loads shall be independently supported.

### Colour:

Sonatex:(White AS180) (Mid Grey RAL7040) (Light Grey RAL7030) (Grey White RAL9002) (Wood Wool Print) (Plaster Print) (Wood Print over RAL1014 Oak) (Wood Print over RAL1013 Blond) (Wood Print over RAL8019 Walnut) (Zinc Yellow RAL1018) (Ivory RAL1014) (Graphite Black RAL9011) (Traffic Red RAL3020) (Orient Red RAL3031) (Traffic Orange RAL2009) (Traffic Green RAL6032) (Aqua RAL6027).

Perforated Finish: (Sonaris 3ply perforated laminate) (4mm slot @25mm centres)(7mm slot at 75 mm centres) (10 mm slot at 100 mm centres)(50 mm Ø perforations at 100 mm centres)(25 x 250 mm diagonal slot at 100 mm centres)(Frangipani flower pattern)(Custom pattern)

Perforated Colour: (white on white)(white on grey)(white on black)(wood look on black)(grey on black)(colours on colours)

### Environmental impact:

Manufactured in NZ, low embodied energy, Triton contains 80% local recycled glass waste, low VOC.

### Fire Reaction:

Material group number: 1S (highest rating) C/VM2 / ISO 5660.1. Suitable for fire exit way and all other sprinklered & non sprinklered buildings.

### Humidity:

Max 95% R/H at 30°C.

### Light reflectance:

ASTM C1477 LR-1, >75% White

### Maintenance:

Clean with vacuum, soft brush or damp cloth. Re-surfacing of soiled panels available, consult Asona.

### NZ Building Code:

Clause B2—durability, 5 years

### Service Panels:

Available with temporary plastic film to help keep panels cleaning during the construction phase, remove on completion

### Weight:

Triton Duo 60 - 9.5 kg/m<sup>2</sup>  
 Triton 25 - 1.5 kg/m<sup>2</sup>  
 Diffusion - 7.5 kg/m<sup>2</sup>

### Installation:

Shall not commence until the building is water tight and dry. Install T24 suspension system with hangers at 1200mm centres, main tees at 1200 mm centres, 1200 cross tee at 600 mm centres and 20 x 20 perimeter angle. M/E services can be mounted in hard Diffusion™ panels. Fluorescent lighting can be surface mounted on grid. Use hold down clips in seismic areas. Install air grilles in the ceiling to balance air pressure differentials.

### Specification:

Ceiling system shall be Classroom 60/40™ composite acoustical ceiling system as manufactured in New Zealand by Asona Ltd Tel: 09 525 6575, module 1200 x 600 mm, cover 60% of ceiling with soft (high mass Triton Duo 60 composite absorber/attenuator panels, NRC 0.95, STC 22db) or (Triton 25 absorber panels αW 1.0, NRC 0.95), cover remaining 40% with 'hard' Diffusion™ reflector panels in layout as noted on drawings. Colour ( ), installed on T24 two way exposed suspension system, secure with 2 x hold down clips per panel. Service panels shall be supplied with temporary plastic film, remove on completion. Fire group 1S.

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