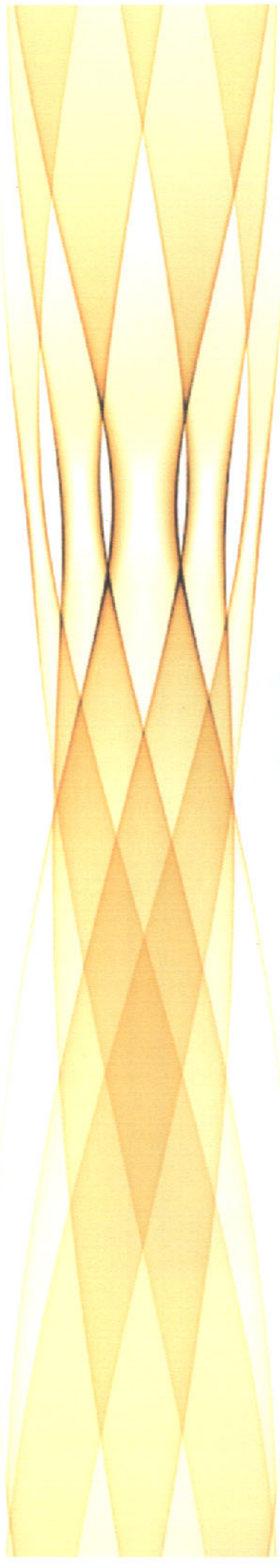




ห้องประชุม

อาคารสำนักงานใหม่ และลานจอดรถ
ชุมชนสหกรณ์ออมทรัพย์ แห่งประเทศไทย จำกัด

Trandar International co.,Ltd.



Trandar International co.,Ltd. 1023/67 soi predeeapanomyong 41, sukhumvit 71 rd. wattana, bangkok
10110 Thailand Tel : 023811510-1 Fax : 023819345

Ecophon Wall panel A รุ่น Super G
ขนาด 1200x2700x40 มม.
ปิดขอบด้วยไม้เนื้อแข็ง หนา 1.5 นิ้ว ทำสีขาว

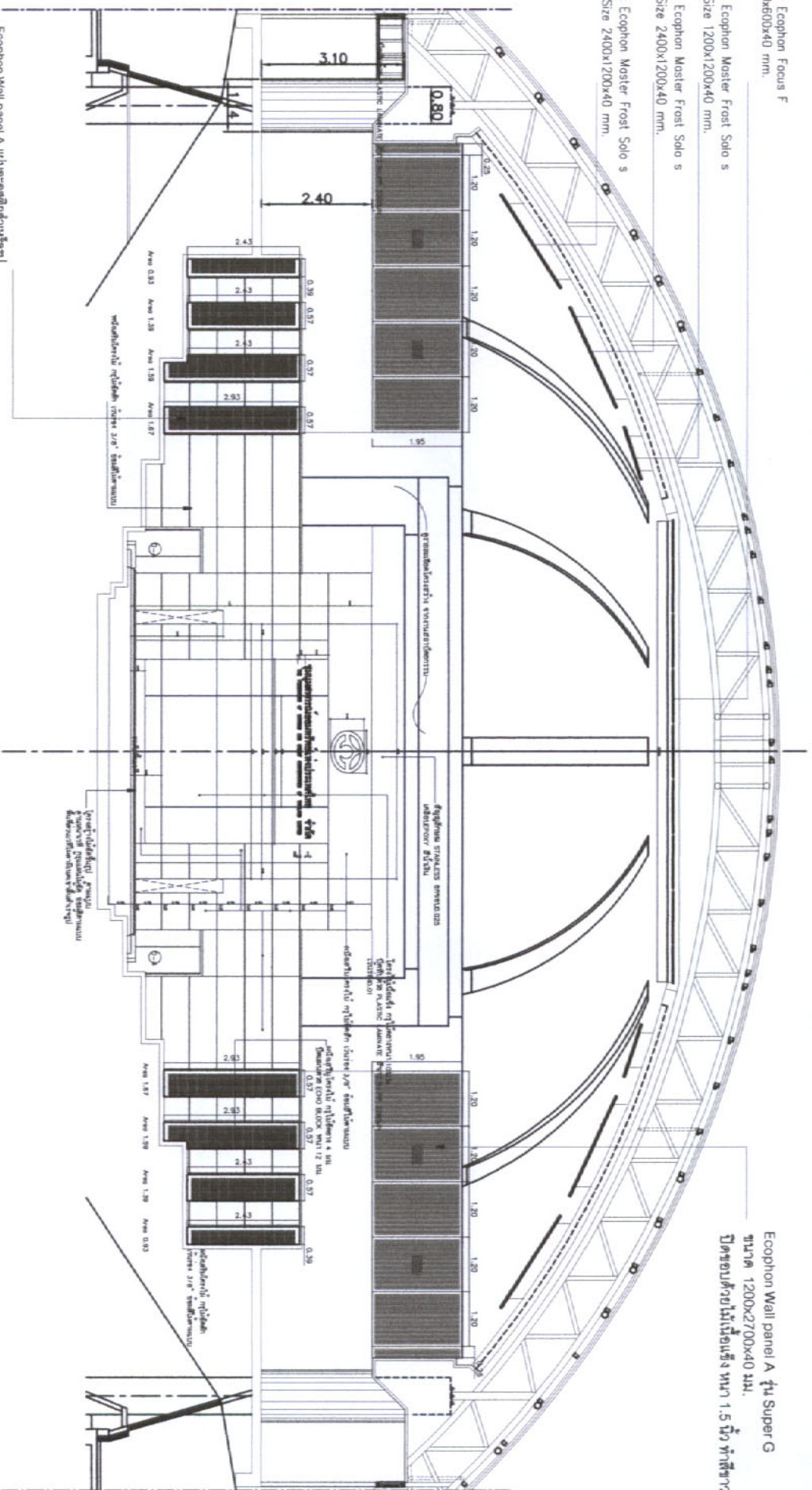


Acoustic Ecophon Focus F
Size 600x600x40 mm.

Acoustic Ecophon Master Frost Solo s
Size 1200x1200x40 mm.

Acoustic Ecophon Master Frost Solo s
Size 2400x1200x40 mm.

Acoustic Ecophon Master Frost Solo s
Size 2400x1200x40 mm.



Ecophon Wall panel A ที่ Super G
ขนาด 1200x2700x40 มม.
ติดตั้งด้วยไม้เนื้อแข็ง ขนาด 1.5 นิ้ว ทาสีขาว

Ecophon Wall panel A ใช้ตะขวยึดที่รูของรู
ผลิตภัณฑ์นี้รวมไปถึงชนิด Connect สามารถเชื่อมติดกัน
ตามวิธีที่แนะนำไว้ คู่มือที่แนบมา 4 หน้า

Ecophon : Super G

ตรา : A

สี : ขาว

ขนาด : 1200x2700x40 มม.

Absorption Class : A

ใช้ตามข้อกำหนด NRC 0.80 -0.86 มาตรฐาน EN ISO 11654
Class A rating มาตรฐาน EN ISO 11654

บริษัท อินเตอร์เนชั่นแนล 200 จำกัด
ทรานแดร์

Trandar
102367 Soil Khumwatt Sukhumvit 71 Rd., Wattana
Bangkok 10110 Thailand
Tel. 023811501 Fax. 023811506

Job no :
Project : วิทยาลัย
พัฒนบริหารศาสตร์ วิทยาลัยเทคโนโลยี

Drawing Title :
Elevation

Drawing By :
Kamolwan N.

Date :
30-03-09

Rev :
Date :
By :

Approved :
Krisada S.

Scale : No Scale
Drawing No : 27

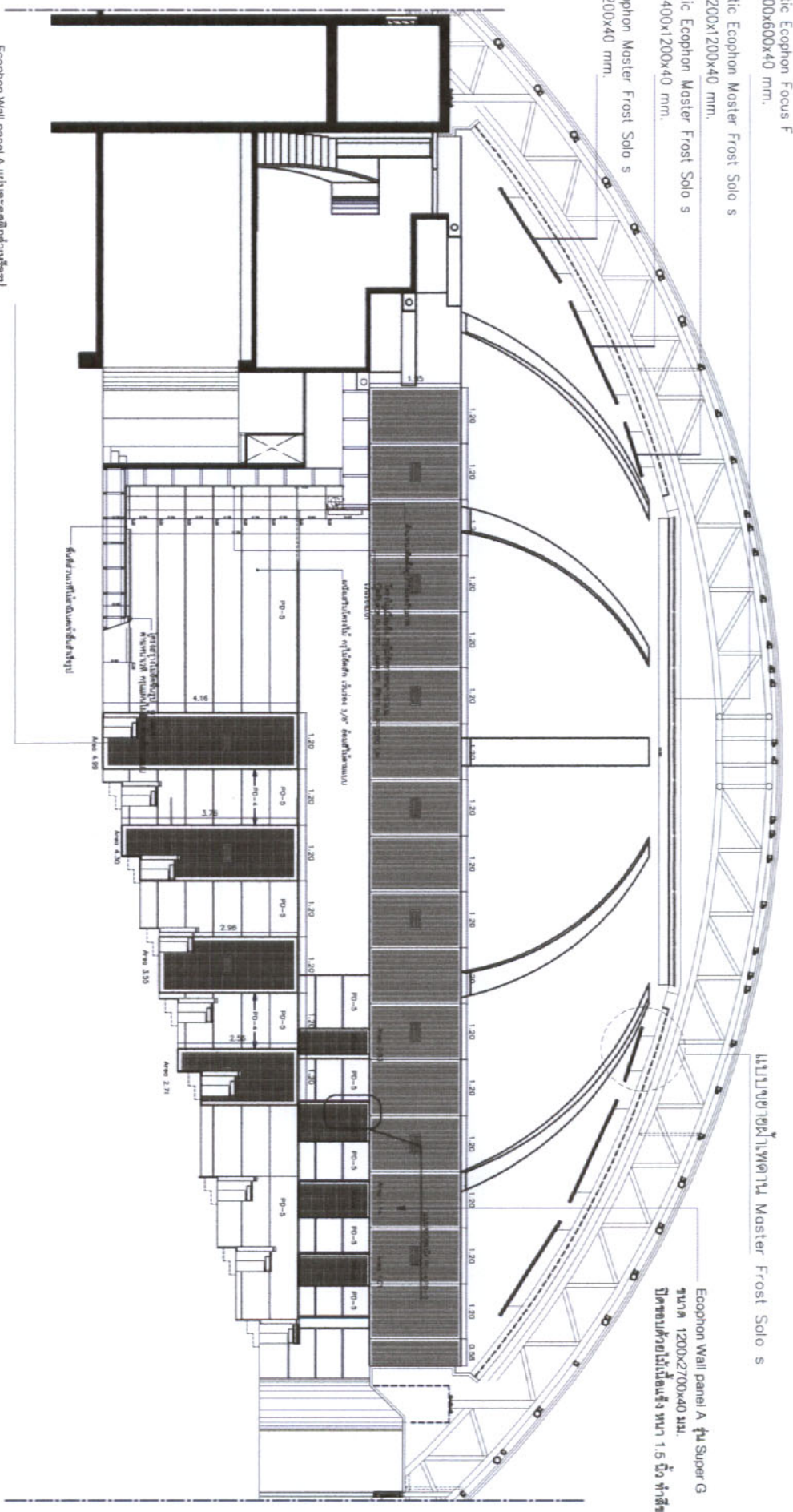
All project and installation design are the property
of the Trandar International and may not used or
reproduced without their written permission

Acoustic Ecophon Focus F
Size 600x600x40 mm.

Acoustic Ecophon Master Frost Solo s
Size 1200x1200x40 mm.

Acoustic Ecophon Master Frost Solo s
Size 2400x1200x40 mm.

Acoustic Ecophon Master Frost Solo s
Size 2400x1200x40 mm.



Ecophon Wall panel A มีประสิทธิภาพการดูดซับเสียงสูงและทนทานต่อความชื้น
 Ecophon : Super G
 รุ่น : A
 สี : ขาว
 ขนาด : 1200x2700x40 มม.
 Absorption Class : A
 มีratingการดูดซับเสียง NRC 0.90 - 0.95 การมาตรฐานตาม ASTM C224 และใช้ Class A rating การมาตรฐานตาม EN ISO 11654

บริษัท อินเทลลิเจนซ์ 200 จำกัด
 โทร 02-261-1501

Trandar
 10236/ Soil Khunwadee Sukhumvit 71 Rd., Watana Bangkok 10110 Thailand
 Tel : 02381-1501 Fax : 02381-6346

Job no :
 Project :
 (ในกรณีที่มีการโอนลิขสิทธิ์)
 (กรณีที่มีการโอนลิขสิทธิ์)

Drawing Title :
 Elevation

Drawing By :
 Kamolwan N.

Sale :

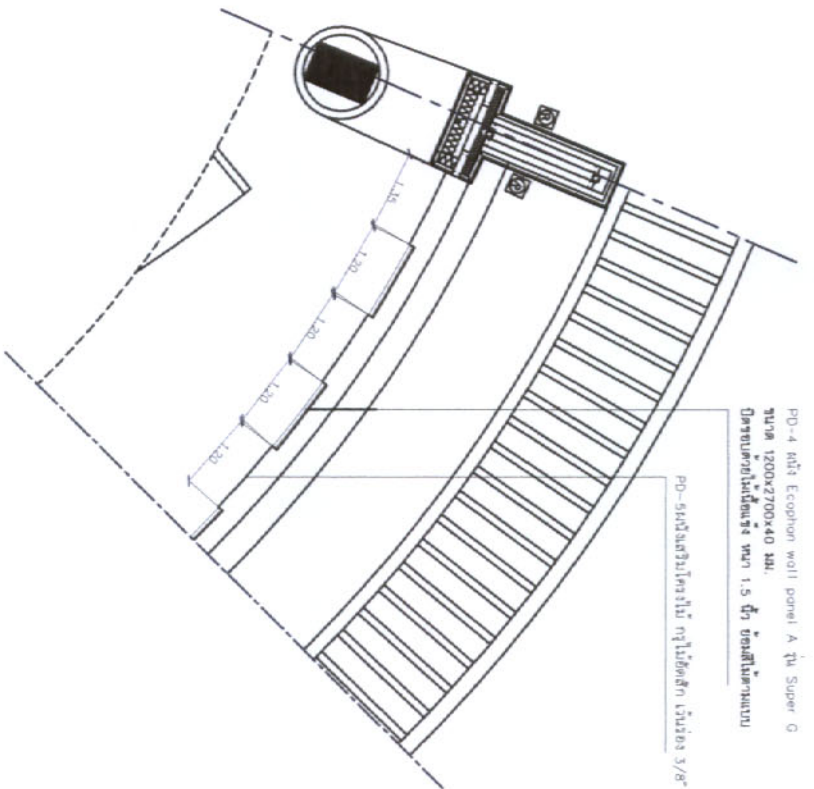
Date :
 30-03-09

Rev :
 Date :
 By :

Approved :
 Kridsada S.

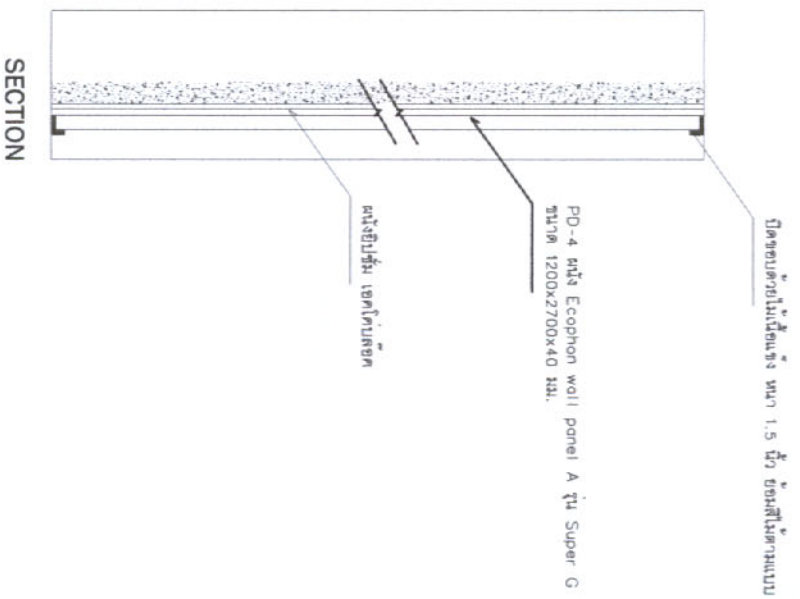
Scale : No Scale
 Drawing No : 3/7

All project and installation design are the property of the Trandar International and may not used or reproduced without their written permission



PD-4 ผนัง Ecophon wall panel A รุ่น Super G
ขนาด 1200x2700x40 มม.
ระยะระหว่างแผ่นสูง 1.50 นิ้ว ผนัง

PD-5 ฝ้าฉาบเรียบยิปซั่ม 3/8" ผนัง

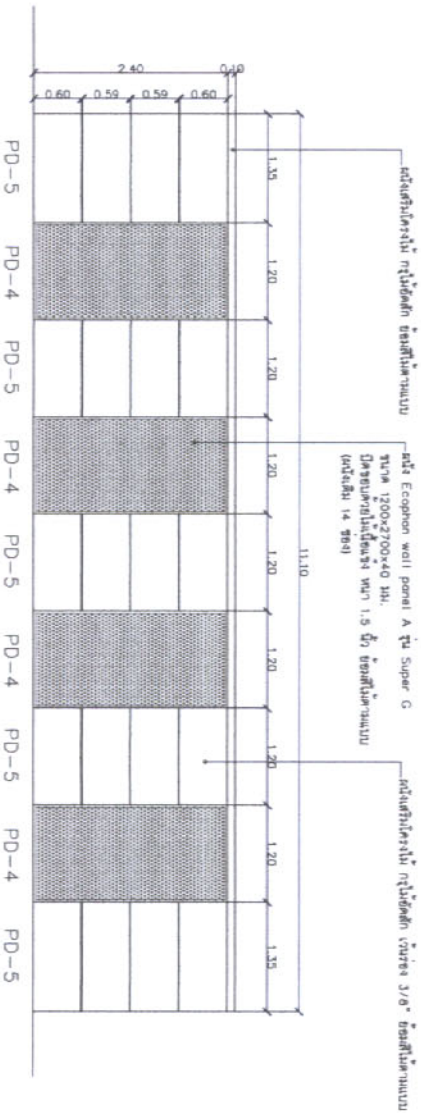


ผนังฉาบเรียบยิปซั่ม หนา 1.5 นิ้ว ผนัง

PD-4 ผนัง Ecophon wall panel A รุ่น Super G
ขนาด 1200x2700x40 มม.

ฝ้าฉาบเรียบยิปซั่ม

SECTION

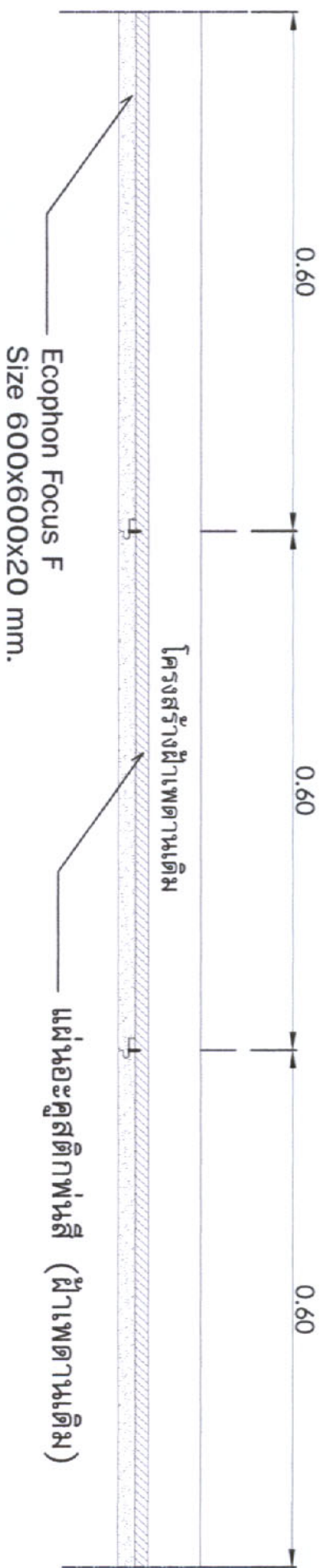


ผนัง Ecophon wall panel A รุ่น Super G

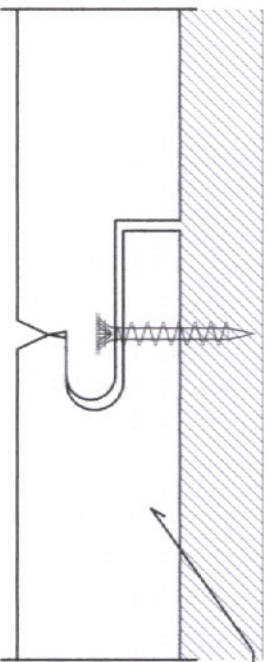
ขนาด 1200x2700x40 มม.
ระยะระหว่างแผ่นสูง 1.50 นิ้ว ผนัง
(อาคารที่ 14 999)

ฝ้าฉาบเรียบยิปซั่ม 3/8" ผนัง

แบบแปลนผนังห้องประชุม 200 ผนัง P-4,P-5
ขนาด 1 : 90



Detail รอยต่อแผ่น Ecophon Focus F



แผ่นฝ้า Ecophon รุ่น Focus F เป็นฝ้าเพดานติดตั้งโดยระบบเข้าลิ้น ซึ่งเป็นระบบเฉพาะของ Ecophon ในการติดตั้งไม่ต้องใช้กาวจะใช้เพียงสกรู โดยที่รอยต่อชนกันของแผ่นจะเป็นระบบล็อกเข้าลิ้นหากัน ติดตั้งได้ง่าย

Detail Ecophon Focus F



Trandar International Co., Ltd.
102367 Soil Kinnwattit Sukhumvit 71 Rd., Wattana Bangkok 10110 Thailand
Tel : 02281-1510-1 Fax : 02281-4945

Job no :
Project :

Drawing Title :
Detail Ecophon Focus F

Drawing By :
Karnokwan N.

Sale :

Date :
30-03-09

Rev :
Date :
By :

Approved :
Krisada S.

Scale : No
Drawing No : 5/7

All project and installation design are the property of the Trandar International and may not be used or reproduced without their written permission



Trandor International Co., Ltd.
 1023/67 Soi Khumwit Sukhumvit 71 Rd., Watana
 Bangkok 10110 Thailand
 Tel : 02381-1510-1 Fax : 02381-0346

Job no :
 Project : วิทยาลัย
 (วิทยาลัยเทคโนโลยีและอาชีวศึกษา
 วิทยาลัยเทคโนโลยีและอาชีวศึกษา 47/76)

Drawing Title :
 Ceiling Plan

Drawing By :
 Kamolwan N.

Scale :

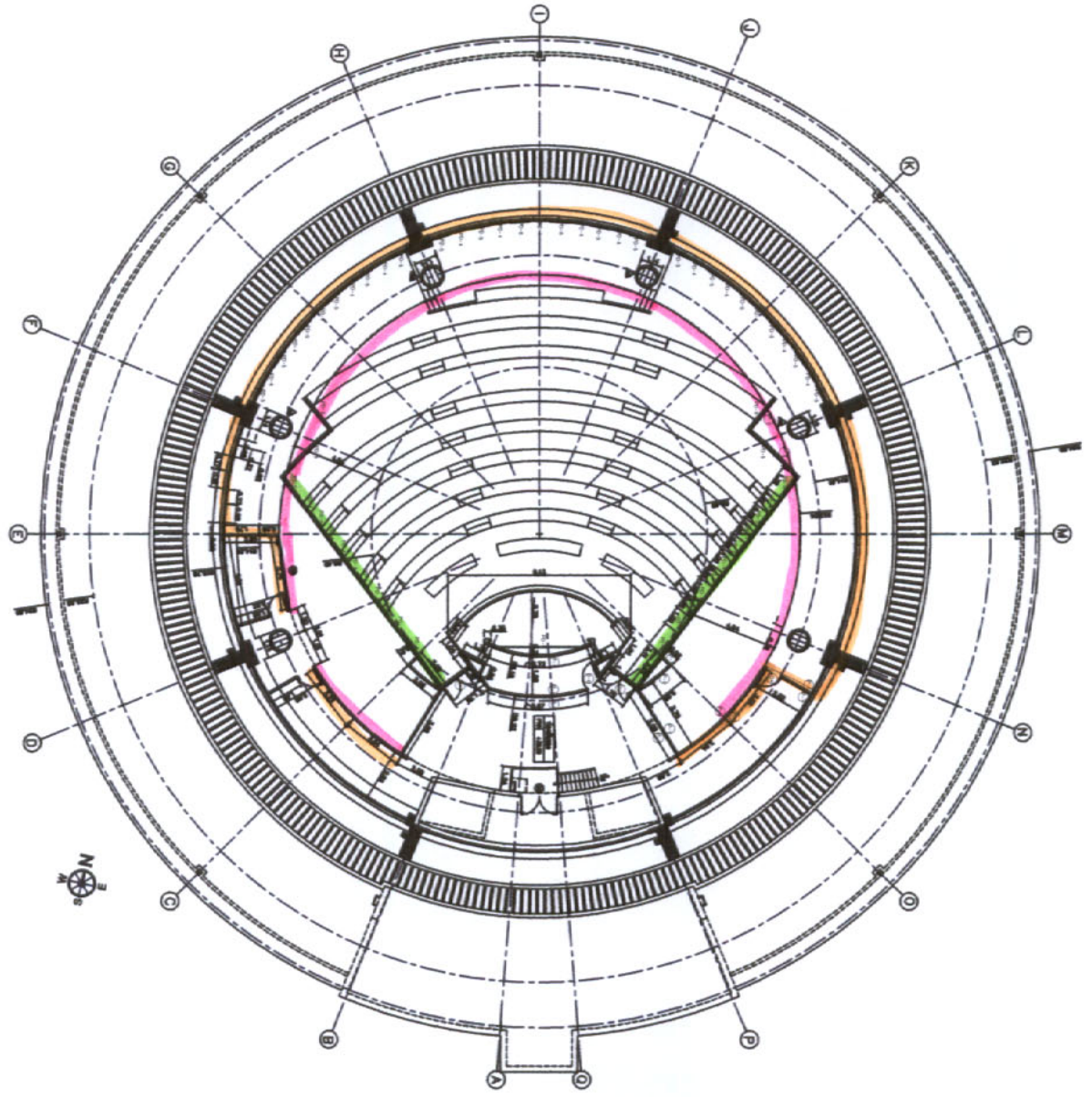
Date :
 30-03-09

Rev :
 Date :
 By :

Approved :
 Kridsada S.

Scale : No Scale
 Drawing No : 77

All project and installation design are the property
 of the trandor international and may not used or
 reproduced without their written permission



แปลนฝ้าเพดานโถงประชุม
 1 : 100

ECOPHON FOCUS™ F

For applications requiring a ceiling which is mechanically secured to the structural soffit, Ecophon Focus F is installed directly to an existing plaster ceiling, boarding, battens or concrete, creating a ceiling with a smooth appearance. The bevelled edges create a narrow groove between each tile. The tiles are not demountable.

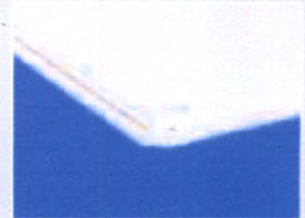
SYSTEM AND PRODUCT DESCRIPTION

The tiles are manufactured from high density glass wool. The visible surface has an Akutex T coating and the back of the tile is covered with glass tissue. The edges are reinforced and painted. The weight is approximately 2,5 kg/m².

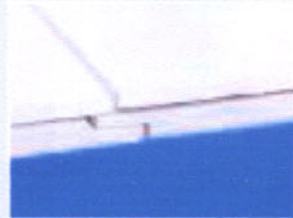
SYSTEM RANGE

Size, mm	1200	600
Screw	•	•
Thickness	600	600
Ins. diagr.	M15	M15

Focus F tile



Section of Focus F system



Focus F system



Focus F is installed by screw fixing



ENVIRONMENTAL INFLUENCE: Granted the Nordic Swan eco-label. Fully recyclable.



INDOOR CLIMATE: Certified by the Indoor Climate Labelling, recommended by the Swedish Asthma and Allergy Association, and can be used in rooms classified as ISO class 6/M3.5.



INFLUENCE OF CLIMATE: The tiles withstand a permanent ambient RH up to 95% at 30°C without sagging, warping or delaminating (ISO 4611).



LIGHT EFFICIENCY: White 010, nearest NCS colour sample S 0502-Y, 84% light reflectance (of which more than 99% is diffuse reflection). Colours: See Ecophon colour range.



CLEANABILITY: Daily dusting and vacuum cleaning. Weekly wet cleaning.



ACCESSIBILITY: The tiles are not demountable.



www.ecophon.com, CADsupport, Product selector, Specification, Maintenance manual



INSTALLATION: Installed according to installation diagram M15, which includes information regarding minimum overall depth of system.



MECHANICAL PROPERTIES: Additional live load has to be secured to the soffit.

NT FIRE 003. See Functional demands, Fire safety. The systems are classified as fire protective covering according to combustible according to prEN ISO 1182.

The glass wool core of the tiles is tested and classified as non-combustible according to prEN ISO 1182.

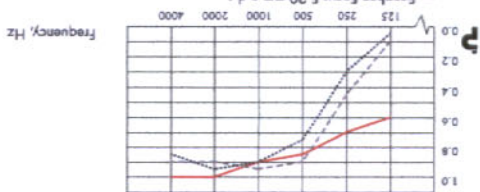
Country	Standard	Class
UK	Fire rating BS 476 Parts 6&7	Class 0
Europe	EN 13501-1	A2-s1,d0

FIRE SAFETY: Reaction-to-fire classifications.



ACOUSTICS: Test results according to EN ISO 354. o.d.s = overall depth of system

α_p Practical sound absorption coefficient



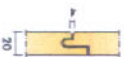
— Ecophon Focus F 20 mm o.d.s.
 - - - Ecophon Focus F 40 mm o.d.s.
 . . . Ecophon Focus F 430 mm o.d.s. including 385 mm thermal insulation.

Classification according to EN ISO 11654, and the single value ratings for NRC and SAA according to ASTM C 423.

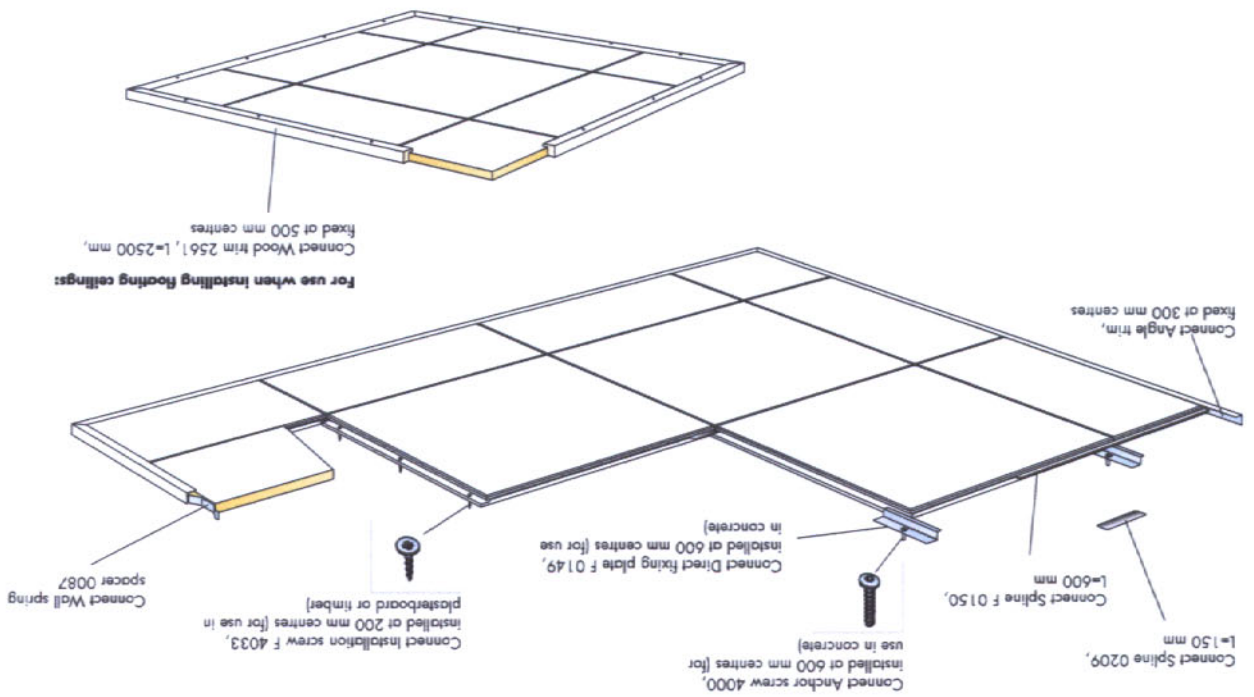
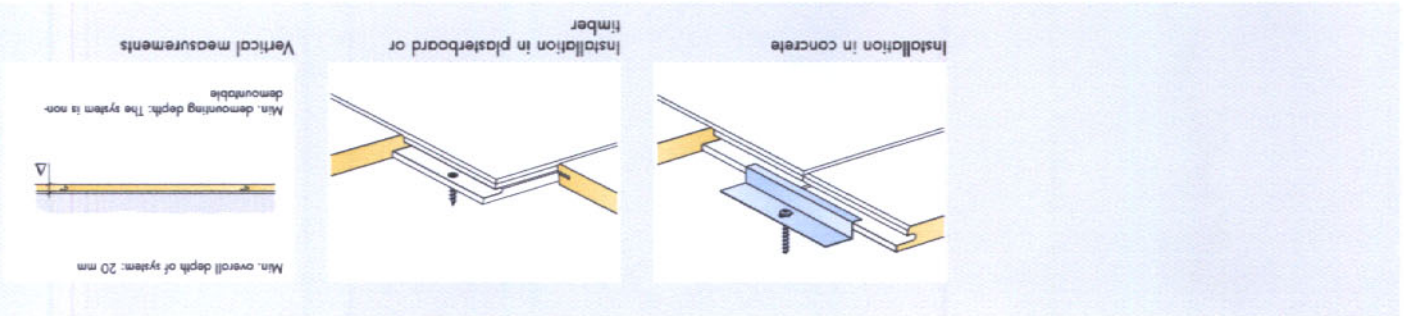
Product	O.d.s, mm	Absorption class	NRC	SAA
Focus F	20 40 430	C C A	0,75	0,77

SOUND INSULATION: Not applicable.

SOUND PRIVACY: Not applicable.



SIZE IN MM		QUANTITY SPECIFICATION (EXCL. WASTAGE)	
600x600	1200x600	Ecophon Focus F	Connect Direct fixing plate F 0149, installed at 600 mm centres (for use in concrete)
			Connect Anchor screw 4000, installed at 600 mm centres (for use in concrete)
			Connect Installation screw F 4033, installed at 200 mm centres (for use in plasterboard or timber)
			Connect Spline F 0150, L=600 mm
			Connect Spline 0209, L=150 mm
			Connect Wall spring spacer 0087
			Connect Angle trim, fixed at 300 mm centres
			For use when installing floating ceilings:
			Connect Wood trim 2561, L=2500 mm, fixed at 500 mm centres
as required	as required	as required	as required
as required	as required	as required	as required
1 per panel in the last row	1 per panel in the last row	1 per panel in the last row	1 per panel in the last row
2,8/m ²	2,8/m ²	2,8/m ²	2,8/m ²
2,8/m ²	2,8/m ²	2,8/m ²	2,8/m ²
2,8/m ²	2,8/m ²	2,8/m ²	2,8/m ²
7/m ²	8,3/m ²	8,3/m ²	7/m ²



INSTALLATION DIAGRAM (M15) FOR FOCUS F

ECOPHON WALL PANEL A™

As an alternative or supplement to sound absorbers in the ceiling, particularly in larger areas, in order to avoid flutter echo, Ecophon Wall Panel A has an exposed grid system and each panel is demountable.

SYSTEM AND PRODUCT DESCRIPTION

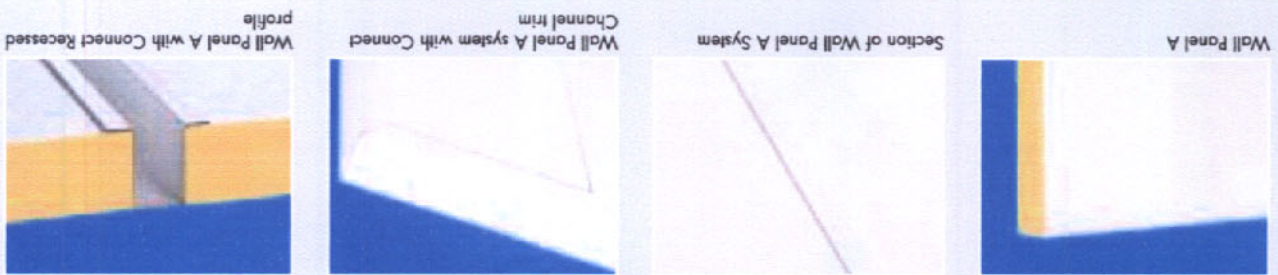
The systems consist of Ecophon Wall Panel A panels and Ecophon Connect grid systems, with an approximate weight of 4 kg/m².

The panels are manufactured from high density glass wool. The visible surface has an Akutex T coating, a glass fibre fabric (Colorado) or a strong glass fibre fabric (Super G). The back of the tile is covered with glass tissue. The edges are natural.

The grid is manufactured from galvanized steel or wood.

SYSTEM RANGE

Size, mm	2700	1200	x	1200	•	•	40	Int. diagr. M38
Thickness								
Wood mouldings								



ACCESSIBILITY: The panels are demountable.

CLEANABILITY: Daily dusting and vacuum cleaning. Weekly wet cleaning (Akutex T and Super G surface). Weekly dusting and vacuum cleaning (Colorado surface).

LIGHT EFFICIENCY: White 010, nearest NCS colour sample S 0502-Y, 84% light reflectance (of which more than 99% is diffuse reflection), valid for Akutex T surface. Other surfaces: See Ecophon Colour Range.

INFLUENCE OF CLIMATE: The panels (Akutex T and Super G) withstand a permanent ambient RH up to 95% at 30°C without sagging, warping or delaminating (ISO 4611).

The panels (Colorado) withstand a permanent ambient RH up to 75% at 30°C without sagging, warping or delaminating. Thermal resistance for the panels, $R_s = 1,0 \text{ m}^2\text{C/W}$. Since a wall absorber mounted on an external wall serves as additional insulation, the need for vapour barrier should be investigated.

INDOOR CLIMATE: Certified by the Indoor Climate Labelling, recommended by the Swedish Asthma and Allergy Association. Akutex T: Can be used in rooms classified as ISO class 6/M3.5.

ENVIRONMENTAL INFLUENCE: Akutex T: Granted the Nordic Swan eco-label. Fully recyclable.

FIRE SAFETY: Reaction-to-fire classifications:

Country	Standard	Class
UK	Fire rating BS 476 Parts 6&7	Class 0
Europe	EN 13501-1	A2-s1, d0

The glass wool core of the panels is tested and classified as non-combustible according to prEN ISO 1182. See Functional demands, Fire safety.

MECHANICAL PROPERTIES: The system can not take any additional live load.

INSTALLATION: Installed according to installation diagram M38.

www.ecophon.com, CADsupport, Product selector, Specification, Maintenance manual

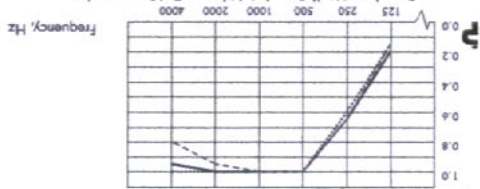
SOUND PRIVACY: Not applicable.

SOUND INSULATION: Not applicable.

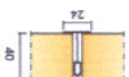
Product	Wool Panel A/Akutex T	Wool Panel A/Super G	Wool Panel A/Colorado
O.d.s. mm	40	40	40
Absorption class	A	A	A
NRC	0.95	0.97	0.95
SAA	0.98	0.97	0.95

Classification according to EN ISO 11654, and the single value ratings for NRC and SAA according to ASTM C 423.

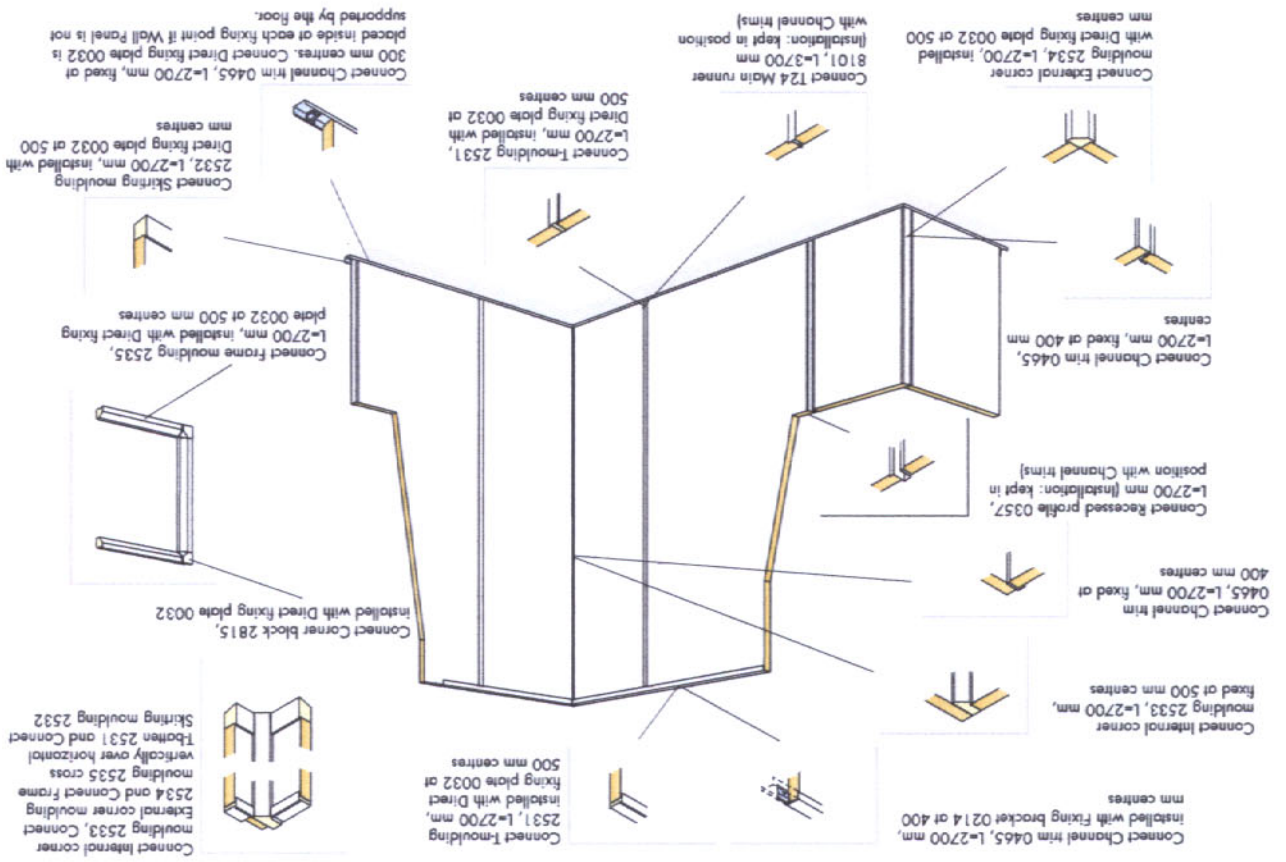
- Ecophon Wall Panel A/Akutex T 40 mm o.d.s
- Ecophon Wall Panel A/Colorado 40 mm o.d.s
- Ecophon Wall Panel A/Super G 40 mm o.d.s



ACOUSTICS: Test results according to EN ISO 354. o.d.s = overall depth of system. α_p Fractional sound absorption coefficient.



INSTALLATION DIAGRAM (M38) FOR WALL PANEL A



Detail of installation



Ecophon Master™ Solo S

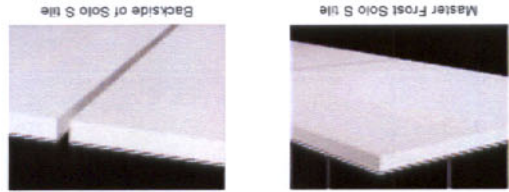
Ecophon Master Solo S is a horizontal element with painted edges. There are no profiles around this single unit which gives it a very clean, minimalist appearance. The product is available in 1200x1200x40 mm or 2400x1200x40 mm with the Akutex FT surface in white 500.

SYSTEM AND PRODUCT DESCRIPTION

The system consists of Ecophon Master Solo S tiles with a weight of 6 kg for size 1200x1200 and 11,5 kg for size 2400x1200. The tiles are manufactured from high density glass wool. The visible surface has an Akutex FT coating and the back of the tile is also covered with Akutex FT. The edges are painted. The spiral anchor is used for suspension of the tiles.

SYSTEM RANGE

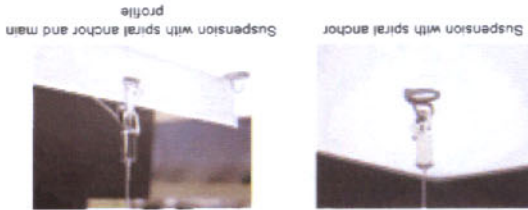
Size, mm	1200	2400
Special fixing	-	-
Thickness	40	m222
Inst. diag.	m222	m222



ACCESSIBILITY: Dismounting of the tile requires access to the rear of the panel where the suspension is connected to the tile.
CLEANABILITY: Daily dusting and vacuum cleaning. Weekly wet cleaning.
LIGHT EFFICIENCY: White 500, nearest NCS colour sample S 0500-N, 85% light reflectance (of which more than 99% is diffuse reflection).
INFLUENCE OF CLIMATE: The tiles withstand a permanent ambient RH up to 95% at 30°C without sagging, warping or delaminating (ISO 4611).

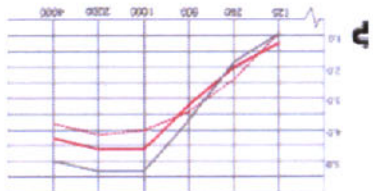
MECHANICAL PROPERTIES: The tile can withstand a point load of maximum 500 g and a distributed load of 2 kg for size 1200x1200 and 2 x 2 kg for size 2400 x 1200 with a separation of 900 mm. See installation guide for information on installing the tile on an angle and where holes can be cut in the tile. Conditions: See Functional demands, Mechanical properties.

FIRE SAFETY: Reaction-to-fire classifications:
 Country Standard Class
 UK EN 13501-1 A2-s1,0o
 Europe
 The glass wool core of the tiles is tested and classified as non-combustible according to prEN ISO 1182.

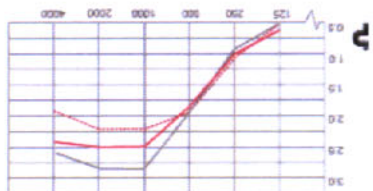


Comment: The values in the diagram refer to measurement on a single unit. If the units are arranged in a cluster with distances between units less than 0.5 meters, the Aeq per unit will be slightly reduced.

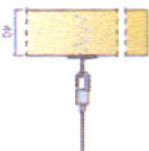
- Ecophon Master Solo S 2400x1200 / 1000 mm o.d.s
- Ecophon Master Solo S 2400x1200 / 400 mm o.d.s
- Ecophon Master Solo S 1200x1200 / 200 mm o.d.s



- Ecophon Master Solo S 1200x1200 / 1000 mm o.d.s
- Ecophon Master Solo S 1200x1200 / 400 mm o.d.s
- Ecophon Master Solo S 1200x1200 / 200 mm o.d.s



ACOUSTICS:
 SOUND ABSORPTION: Test results according to EN ISO 354
 Classification according to EN ISO 11854, and the single value ratings for NRC and S_αA according to ASTM C 423
 SOUND INSULATION: Not applicable
 SOUND PRIVACY: Not applicable



INDOOR CLIMATE: Certified by the Indoor Climate Labelling, recommended by the Swedish Asthma and Allergy Association, and can be used in rooms classified as ISO class 5/M3.5.

ENVIRONMENTAL INFLUENCE: Granted the Nordic Swan eco-label. Fully recyclable.

INSTALLATION: Installed according to installation diagram M222 which includes information regarding minimum overall depth of system.

www.ecophon.com, CADsupport, Product selector, Specification, Maintenance manual

