

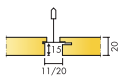
Ecophon Focus™ Lp

Ecophon Focus™ Lp has a semi-concealed grid system used for highlighting direction in a room. Features a wide gap between tiles in the emphasised direction and a narrow gap in the other. The system consists of standard Focus™ Lp tiles and Focus™ Lp Technical tiles.

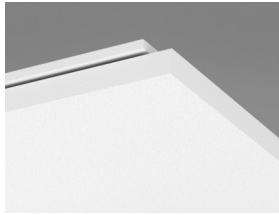


Kuopio Courthouse, Finland

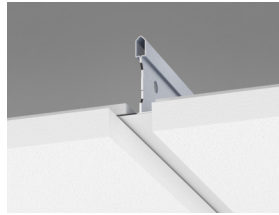
SYSTEM RANGE



Size, mm	600x150	600x300	600x600	1200x150	1200x300	1200x600	XL 1800x600
T24	•	•	•	•	•	•	•
Thickness (THK)	20	20	20	20	20	20	20
Inst. Diag.	M391	M390, M391	M390, M391	M391	M390, M391	M390, M391	M392



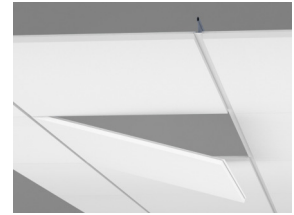
Focus Lp tile



Section of Focus Lp system with Connect T24 Main runner



Focus Lp system



Demounting of tile

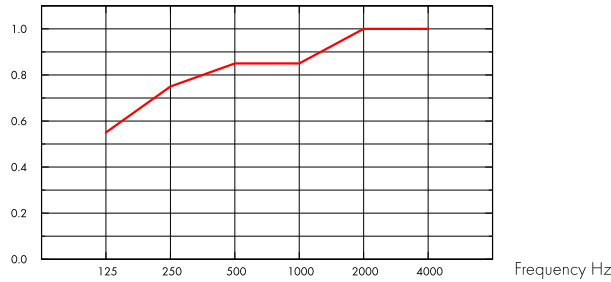
Acoustic



Sound Absorption:

Test results according to EN ISO 354. Classification according to EN ISO 11654, and the single value ratings for Noise Reduction Coefficient, NRC and Sound Absorption Average, SAA according to ASTM C 423.

α_p , Practical sound absorption coefficient



— Focus Lp 20 mm, 200 mm o.d.s.
o.d.s = overall depth of system

THK mm	o.d.s. mm	α_p , Practical sound absorption coefficient						α_w	Sound absorption class
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz		
20	200	0.55	0.75	0.85	0.85	1.00	1.00	0.90	A

THK mm	o.d.s. mm	NRC	SAA
20	400	0.80	0.82

THK mm	AC(1.5)	D_{nfw}	CAC dB
	Articulation Class, ASTM E1111, ASTM E1110	Weighted normalized flanking level difference, ISO 10848-2	Ceiling Attenuation Class, ASTM 1414, ASTM E413
20	180	24	25

Indoor Air Quality



Certificate / Label	Standard
Eurofins Indoor Air Comfort®	IAC
French VOC	A
Finnish M1	•



Environmental Footprint



	kg CO ₂ equiv/m ²
Focus Lp	4,66

Life-cycle stages A1 to C4 from EPD, in conformity with ISO 14025 / EN 15804



Circularity

Minimum post-consumer recycled content	57%
Recyclability	Fully recyclable



Fire safety

Country	Class	
Europe	EN 13501-1	A2-s1,d0

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



Humidity Resistance

Class C, relative humidity 95% and 30°C, according to EN 13964:2014



Visual appearance

White Frost, nearest NCS colour sample S 0500-N, 85% light reflectance. Gloss < 1.



Cleanability

Daily dusting and vacuum cleaning. Weekly wet wiping.



Accessibility

The tiles are easily demountable. Minimum demounting depth according to installation diagrams.



Installation

Installed according to installation diagrams, installation guides and drawing aid. For information regarding minimum overall depth of system see quantity specification. The systems are not recommended for small rooms (approximately 2x2 m²). Ceilings with a large amount of integrations require careful planning, design and installation.



System weight

The weight of the system (including suspension grid) should be approximately 3-4 kg/m².



Mechanical properties

See table about Max live load and Min load bearing capacity and Functional demands, Mechanical properties at www.ecophon.com. For the Technical tiles installed according to M391 there is a load bearing capacity of 100 N for each Main runner per 1200 mm. This gives a total load bearing capacity of 200 N for a load evenly distributed on two Main runners.



CE

Ecophon ceiling systems are CE marked according to the European harmonized standard EN13964:2014. CE marked construction products are covered by a Declaration of Performance (DOP) which enables customers and users to easily compare performance of products available on the European market.

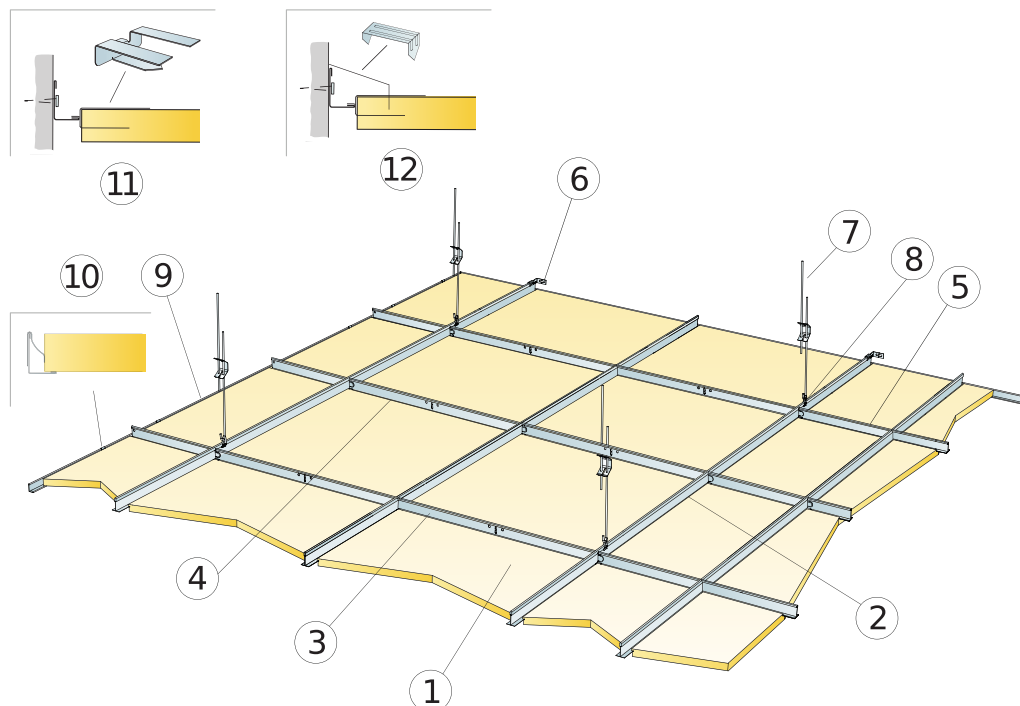


Indoor Air Quality

Certificate / Label	Standard
Eurofins Indoor Air Comfort®	IAC
French VOC	A
Finnish M1	•

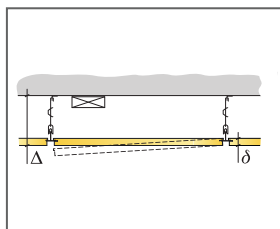


INSTALLATION DIAGRAM (M390) FOR ECOPHON FOCUS LP

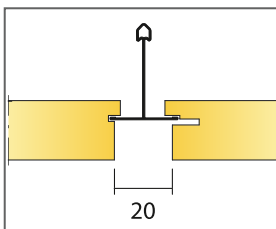


QUANTITY SPECIFICATION (EXCL. WASTAGE)

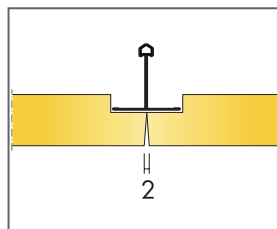
	Size, mm			
	600x300	600x600	1200x300	1200x600
1 Focus Lp	5,6/m ²	2,8/m ²	2,8/m ²	1,4/m ²
2 Connect T24 Main runner, installed at 1200 mm centres (max distance from wall 600 mm)	0,9m/m ²	0,9m/m ²	0,9m/m ²	0,9m/m ²
3 Connect T24 Cross tee L=1200 mm	3,4m/m ²	1,7m/m ²	3,4m/m ²	1,7m/m ²
4 Connect T24 Cross tee, L=600 mm	-	0,9m/m ²	-	-
5 Connect T24 Cross tee, L=300 mm	0,9m/m ²	-	-	-
6 Connect Wall Bracket for T-profiles	1/suspended row of Main runner			
7 Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²	0,7/m ²	0,7/m ²
8 Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²	0,7/m ²	0,7/m ²
9 Connect Angle trim, fixed at 300 mm centres	as required	as required	as required	as required
10 Connect Wall spring	2 pcs/on every cut perimeter tile with only 1 supporting edge			
11 Connect Support clip Dg20	2per perimeter tile, cut on the long side	2per perimeter tile, cut on the long side	3per perimeter tile, cut on the long side	3per perimeter tile, cut on the long side
12 Connect Perimeter tile clip	1/300-400mm on any cut edge			
Δ Min. overall depth of system: 115 mm	-	-	-	-
δ Min. demounting depth: 20 mm	-	-	-	-
For luminaire integration in panels use Connect Bridging	-	-	-	-



See Quantity specification



Distance between Focus Lp tiles

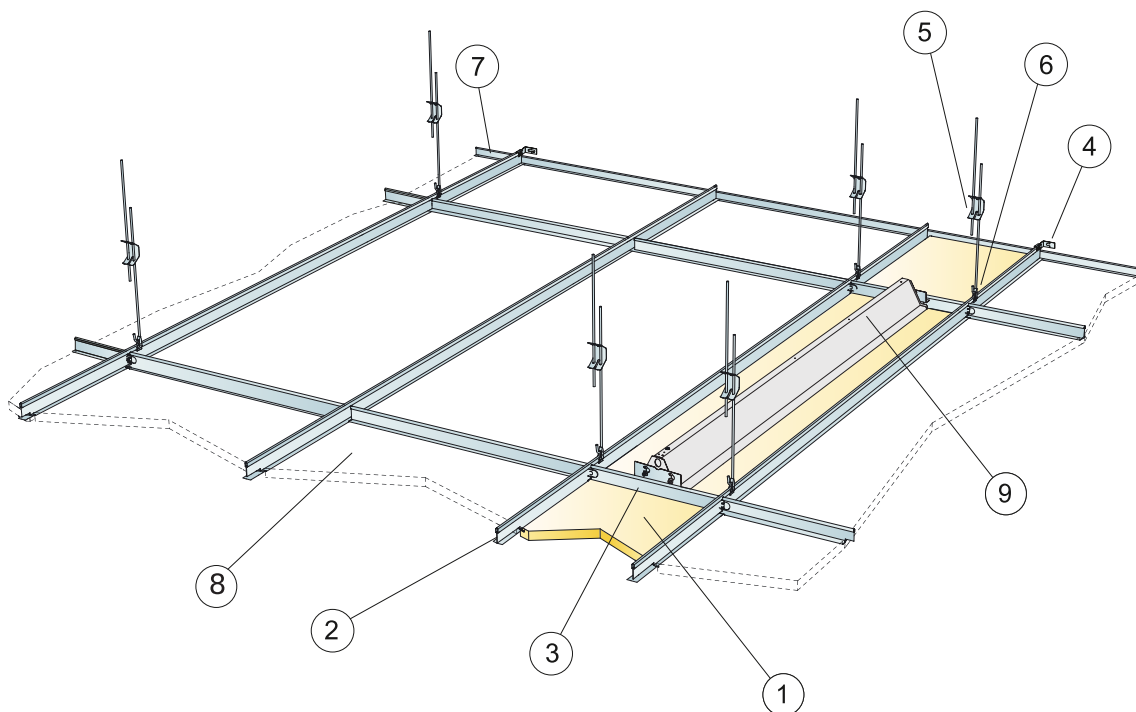


Non-supported edges meeting with space for cross-tee.

Size, mm	Max live load (N)	Min load bearing capacity (N)
600x300x20	30	160
600x600x20	30	160
1200x300x20	30	160
1200x600x20	30	160

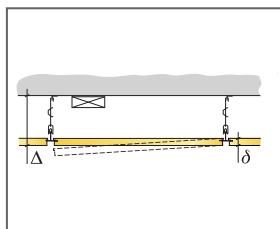
Live load/load bearing capacity

INSTALLATION DIAGRAM (M391) FOR ECOPHON FOCUS LP TECHNICAL TILE

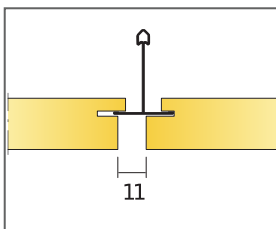


QUANTITY SPECIFICATION (EXCL. WASTAGE)

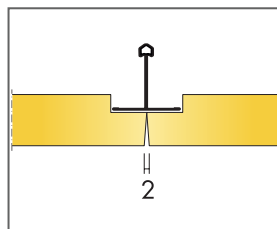
	Size, mm					
	600x150	600x300	600x600	1200x150	1200x300	1200x600
1 Focus Ip Technical tile ND	11,1/m ²	5,6/m ²	2,8/m ²	5,6/m ²	2,8/m ²	1,4/m ²
2 Connect T24 Main runner	6,7m/m ²	3,35m/m ²	1,7m/m ²	6,7m/m ²	3,35m/m ²	1,7m/m ²
3 Connect T24 Cross tee, L=150/300/600 mm	1,7m/m ²	1,7m/m ²	1,7m/m ²	0,85m/m ²	0,85m/m ²	0,85m/m ²
4 Connect Wall Bracket for T-profiles	1/suspended row of Main runner					
5 Connect Adjustable hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	5,6/m ²	2,8/m ²	1,4/m ²	5,6/m ²	2,8/m ²	1,4/m ²
6 Connect Hanger clip	5,6/m ²	2,8/m ²	1,4/m ²	5,6/m ²	2,8/m ²	1,4/m ²
7 Connect Angle trim, fixed at 300 mm centres	as required	as required	as required	as required	as required	as required
8 Focus Ip (adjacent ceiling)	-	-	-	-	-	-
9 Ecophon Line Ip	-	-	-	-	-	-
Δ Min. overall depth of system: 105 mm (190 mm when using Connect Space bar connector)	-	-	-	-	-	-
δ Min. demounting depth: 20 mm	-	-	-	-	-	-
For luminaire integration in panels use Connect Bridging	-	-	-	-	-	-
The area in quantity specification for M391 refers to the installation area between the two suspended Main runners. Maximum two rows of Technical tiles can be installed next to each other.	-	-	-	-	-	-
For integration with a unbroken luminaire, width < 300 mm use Connect Spacebar connector, max height 75 mm	-	-	-	-	-	-



See Quantity specification



Distance between Focus Ip and Focus Ip Technical tile

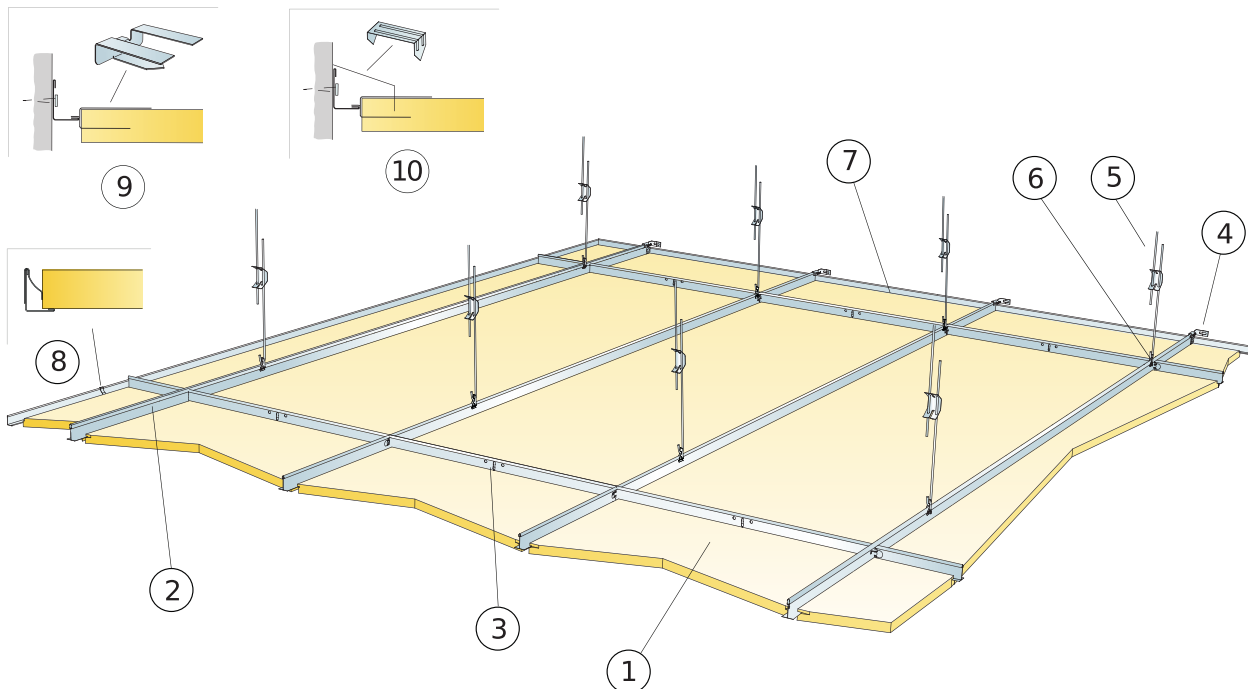


Non-supported edges meeting with space for cross-tee.

Size, mm	Max live load (N)	Min load bearing capacity (N)
600x150x20	50	160
600x300x20	50	160
600x600x20	50	160
1200x150x20	50	160
1200x300x20	50	160
1200x600x20	50	160

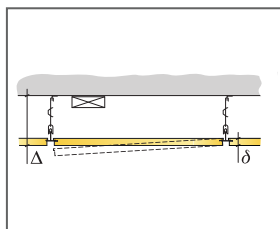
Live load/load bearing capacity

INSTALLATION DIAGRAM (M392) FOR ECOPHON FOCUS LP XL

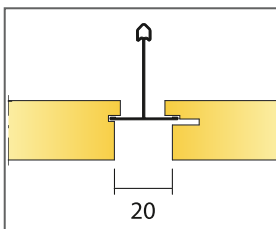


QUANTITY SPECIFICATION (EXCL. WASTAGE)

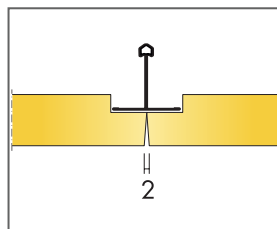
	Size, mm
1800x600	
1 Focus Ip	0,95/m ²
2 Connect T24 Main runner, installed at 600 mm centres	1,7m/m ²
3 Connect T24 Cross tee, L=600 mm	0,6m/m ²
4 Connect Wall Bracket for T-profiles	1/suspended row of Main runner
5 Connect Adjustable hanger, installed at 1500 mm centres (max. distance from wall 450 mm)	1,1/m ²
6 Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²
7 Connect Angle trim, fixed at 300 mm centres	as required
8 Connect Wall spring	3pcs/on every cut perimeter tile with only 1 supporting edge
9 Connect Support clip Dg20	4per perimeter tile, cut on the long side
10 Connect Perimeter tile clip	1/300-400mm on any cut edge
Δ Min. overall depth of system: 115 mm	-
δ Min. demounting depth: 20 mm	-
For luminaire integration in panels use Connect Bridging	-



See Quantity specification



Distance between Focus Ip tiles



Non-supported edges meeting with space for cross-tee.

Size, mm	Max live load (N)	Min load bearing capacity (N)
1800x600x20	50	160

Live load/load bearing capacity