

Ecophon Master™ Rigid Dp

Suitable for classrooms or other premises where strict demands are made on good acoustics and speech intelligibility, and where demountability is required. Ecophon Master Rigid Dp (patent pending) has a semi-concealed grid system, and is used when an impact resistant and lockable system is required. There is a 8 mm gap between the tiles in the emphasized direction and narrow gap in the other. The edges are sharp and well defined. Each tile can be locked but still fully demountable.

The system consists of Ecophon Master Rigid Dp tiles, Ecophon Extra Bass and Ecophon Connect grid system, with an approximate weight of 4 kg/m². The tiles are manufactured from high density, 3rd generation glass wool.

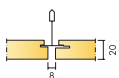
The surface is a reinforced sandwich construction. The visible surface has an Akutex™ FT coating. The product is also available with a sound reflecting surface (gamma) with the same visual appearance. The back of the tile is covered with glass tissue. The edges are painted.

Ecophon Extra Bass is used to improve sound absorption in the low frequency range, and is installed on top of the suspended ceiling. For best performance and system quality, use Ecophon Connect grid and accessories. The grid is manufactured from galvanized steel.



Albert-Schweitzer-Schule, St. Ingbert, Germany

SYSTEM RANGE



Size, mm	600x600	1200x600	XL 1600x600	XL 1800x600	XL 2000x600	XL 2400x600
T24	•	•	•	•	•	•
Thickness	20	20	20	20	20	20
Inst. Diagr.	M318, M319	M318, M319	M334	M334	M334	M334



Master Rigid Dp tile



Section of Master Rigid Dp system with Connect T24



Master Rigid Dp system with Connect T24

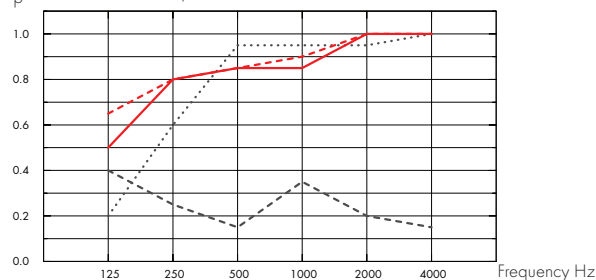


Acoustic

Sound Absorption:

Test results according to EN ISO 354. Classification according to EN ISO 11654.

α_p , Practical sound absorption coefficient



... Master Rigid Dp 20 mm, 65 mm o.d.s.

— Master Rigid Dp 20 mm, 200 mm o.d.s.

--- Master Rigid Dp 20 mm + Extra Bass 50 mm, 200 mm o.d.s.

--- Master Rigid Dp gamma 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	65	0,20	0,60	0,95	0,95	0,95	1,00	0,90	A
	20	200	0,50	0,80	0,85	0,85	1,00	1,00	0,90	A
+ Extra Bass	70	200	0,65	0,80	0,85	0,90	1,00	1,00	0,90	A
gamma	20	200	0,40	0,25	0,15	0,35	0,20	0,15	0,20	E



Accessibility

The tiles are secured in the grid, but demountable. Minimum demounting depth according to installation diagrams.



Cleanability

Daily dusting and vacuum cleaning. Weekly wet wiping.



Visual appearance

White Frost, nearest NCS colour sample S 0500-N, 85% light reflectance (of which more than 99% is diffuse reflection). Retro reflection coefficient 63 mcd/(m²lx). Gloss < 1.



Influence of climate

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



Indoor Climate

Certificate / Label

Europe

EN
13501-1



Environmental influence

Certificate / Label

Europe

EN
13501-1

Glass wool core utilizing 3RD Technology. In combination with Master Rigid system Extra Bass is granted the Nordic Swan eco-label. Fully recyclable.



Fire safety

Country

Europe

Standard

EN 13501-1

Class

A2-s1,d0

The glass wool core of the tiles is tested and classified as non-combustible according to EN ISO 1182. The systems are classified as fire protective covering according to NT FIRE 003.



Mechanical properties

M318, M319 is tested and classified as 3A according to EN 13964 annex D. See table about Max live load and Min load bearing and Functional demands, Mechanical properties at www.ecophon.com.



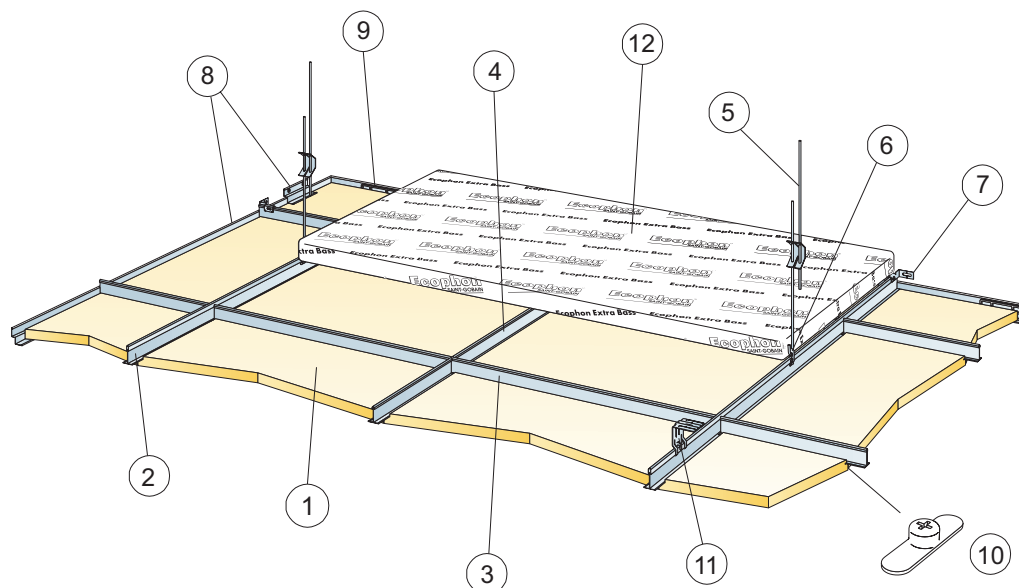
Installation

Installed according to installation diagrams, installation guides and drawing aid. For information regarding minimum overall depth of system see quantity specification.



CE

2,9 kg equivalent CO₂ / m² according to EPD

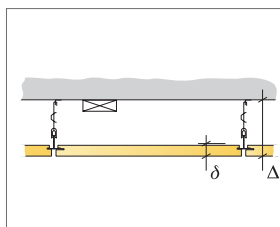


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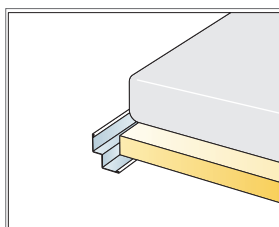
QUANTITY SPECIFICATION (EXCL. WASTAGE)

		Size, mm	
		600x600	1200x600
1	Master Rigid Dp	2,8/m ²	1,4/m ²
2	Connect T24 Main runner, installed at 1200 mm centres (max. distance from wall 600 mm, can be extended up to 1200 mm if no live load between Main runner and wall).	0,9m/m ²	0,9m/m ²
3	Connect T24 Cross tee, L=1200 mm, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
4	Connect T24 Cross tee, L=600 mm	0,9m/m ²	-
5	Connect Adjustable hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²
6	Connect Hanger clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
7	Connect Wall bracket for T-profiles (For every suspended row of main runner and every second row of cross tee)	as required	as required
8	Connect Shadow-line trim, fixed at 300 mm centres	as required	as required
9	Connect Wall spacer 5	1/cut tile with one bearing edge	2/cut tile with one bearing edge
10	Connect Panel lock Dp	1/panel	2/panel
11	For direct installation: Connect Direct bracket, installed at 1200 mm centres	0,7/m ²	0,7/m ²
12	Extra Bass (1200x600x50 mm)	0,6/m ²	0,6/m ²
Δ Min. overall depth of system: 115 mm		-	-

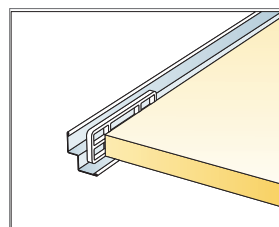
δ Min. demounting depth: 20 mm



See Quantity specification



Wall connection with Connect Shadow-line trim

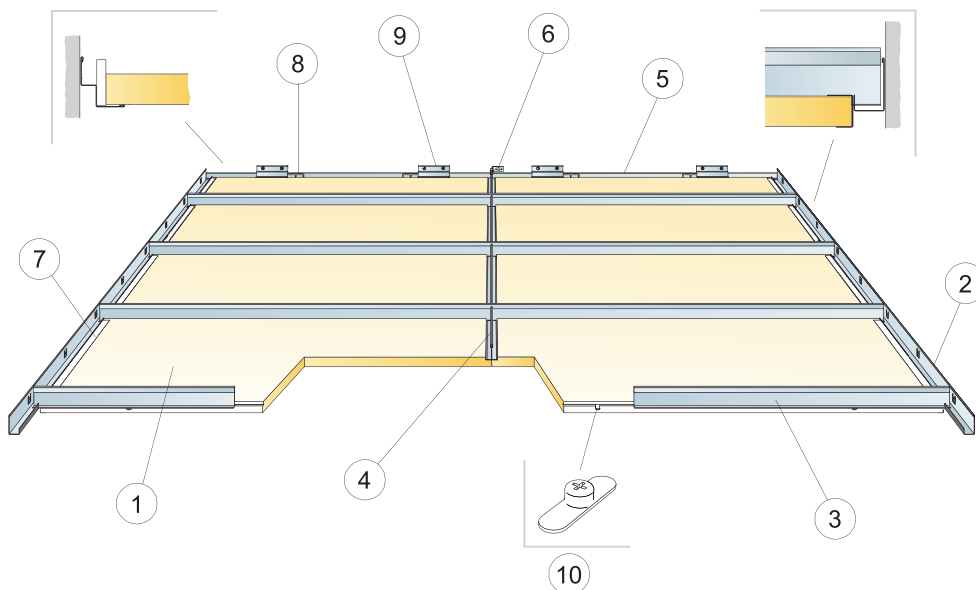


Connect Wall spacer 5 for locking of the perimeter tile

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

Live load/load bearing capacity

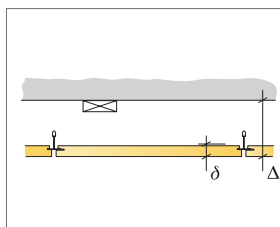
INSTALLATION DIAGRAM (M319) FOR MASTER RIGID IN CORRIDORS



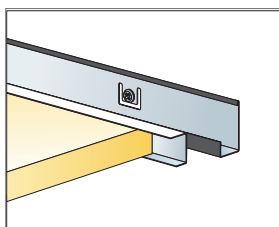
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QUANTITY SPECIFICATION (EXCL. WASTAGE)

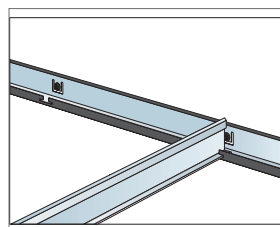
		Size, mm	
		600x600	1200x600
1	Master Rigid Dp	2,8/m ²	1,4/m ²
2	Connect Modular Wall trim	as required	as required
3	Connect T24 Corridor profile	as required	as required
4	Connect T24 Cross tee, L=600 mm	as required	as required
5	Connect Shadow-line trim, fixed at 300 mm centres	as required	as required
6	Connect Wall bracket for T-profiles	2 for every row of cross tee	
7	Connect Edge cover Dp 0732 / Cover trim Dp/Dg 0732	as required	as required
8	Connect Wall spacer 5	1/cut tile with one bearing edge	2/cut tile with one bearing edge
9	Connect Shadow-line trim, fixed at 300 mm centres	as required	as required
10	Connect Panel lock Dp	1/panel	2/panel
Δ Min. overall depth of system: 115 mm		-	-
δ Min. demounting depth: 20 mm		-	-



See Quantity specification



Tile and Connect Cover trim Dp/Dg

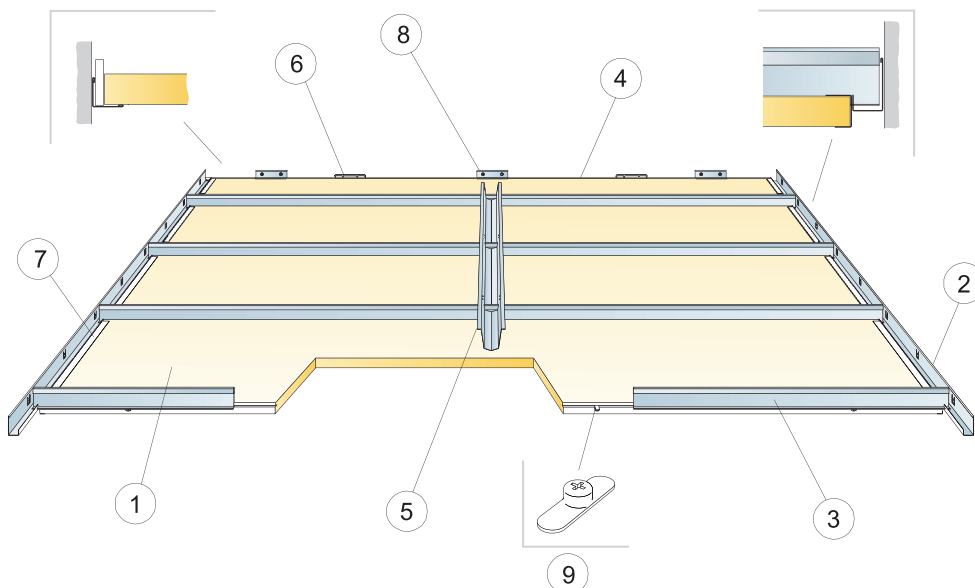


Corridor profile positioned by Modular wall trim



Live load/load bearing capacity see M334

INSTALLATION DIAGRAM (M334) FOR ECOPHON MASTER RIGID DP XL IN CORRIDORS

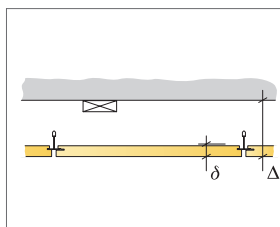


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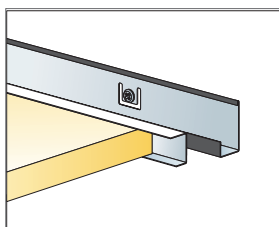
QUANTITY SPECIFICATION (EXCL. WASTAGE)

		Size, mm			
		1600x600	1800x600	2000x600	2400x600
1	Master Rigid Dp	1,05/m ²	0,95/m ²	0,85/m ²	0,7/m ²
2	Connect Modular Wall trim	as required	as required	as required	as required
3	Connect T24 Corridor profile	1,05/m ²	0,95/m ²	0,85/m ²	0,7/m ²
4	Connect Angle trim, fixed at 200 mm centres	as required	as required	as required	as required
5	Connect Space bar, installed at 1500 mm centres (max. distance from wall 300 mm)	as required	as required	as required	as required
6	Connect Wall spacer 5	2/cut tile with one bearing edge			
7	Connect Edge cover Dp 0732 / Cover trim Dp/Dg 0732	2/panel	2/panel	2/panel	2/panel
8	Connect Angle trim	as required	as required	as required	as required
9	Connect Panel lock Dp	3/panel	3/panel	3/panel	3/panel
Δ Min. overall depth of system: 115 mm		-	-	-	-

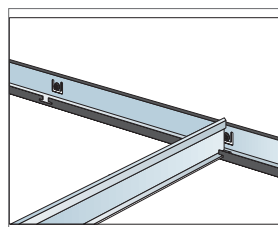
δ Min. demounting depth: 20 mm



See Quantity specification



Tile and Connect Cover trim Dp/Dg



Corridor profile positioned by Modular wall trim

Size, mm	Max live load [N]	Min load bearing capacity [N]
1600x600	40	-
1800x600	20	-
2000x600	10	-
2400x600	0	-

Live load/load bearing capacity