

Ecophon Sombra™ Ds

For applications requiring a dark ceiling having low light reflection and a concealed grid, but where individual tiles must be demountable. Ecophon Sombra Ds is installed in a suspended grid system, creating a ceiling with a smooth appearance. The bevelled edges create a narrow groove between each tile. The tiles are easily demountable.

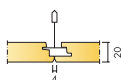
The system consists of Ecophon Sombra Ds tiles and Ecophon Connect grid systems, with an approximate weight of 4 kg/m² (5 kg/m² with Ecophon Extra Bass). The tiles are manufactured from high density, 3rd generation glass wool. The visible surface is a matt black batch painted glass tissue and the back of the tile is covered with glass tissue. The edges are painted. To improve absorption in the low

frequency range, Ecophon Extra Bass can be 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.



Waterschap Rivierland Tiel, Tiel, Netherlands

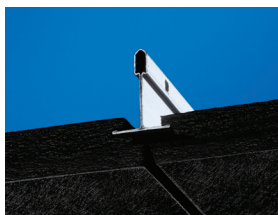
SYSTEM RANGE



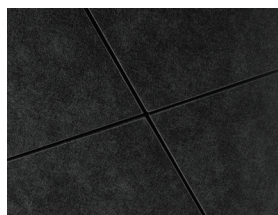
Size, mm	600x600	1 200x600
T24	•	•
Thickness	20	20
Inst. Diag.	M227	M227



Sombra Ds tile



Section of Sombra Ds system



Sombra Ds system

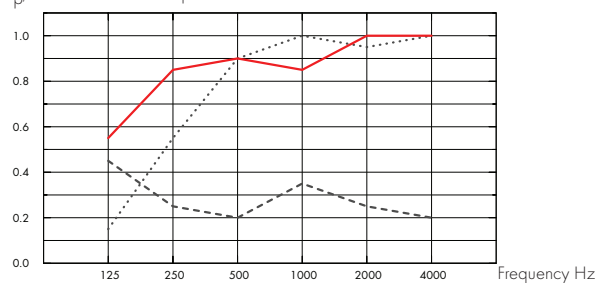


Acoustic

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



... Sombra Ds 20 mm, 65 mm o.d.s.

— Sombra Ds 20 mm, 200 mm o.d.s.

--- Sombra Ds 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	0,15	0,55	0,90	1,00	0,95	1,00	0,85	B
	20	200	0,55	0,85	0,90	0,85	1,00	1,00	0,90	A
gamma	20	200	0,45	0,25	0,20	0,35	0,25	0,20	0,25	E



Accessibility

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



Cleanability

Weekly dusting and vacuum cleaning.



Visual appearance

Black 997, nearest NCS colour sample S 9000-N, 3-4% light reflectance.



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

M1

EMISSIION CLASS FOR BUILDING MATERIAL



Environmental influence

Certificate / Label

Europe

EN
13501-1

Fully recyclable.



CO₂

Kg CO₂ equiv/m²

4,5

2,9 kg equivalent CO₂ / m² according to EPD



Fire safety

Country

Standard

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.

The systems are classified as fire protective covering according to NT FIRE 003.



Mechanical properties

See table about Max live load and Min load bearing capacity and Functional demands, Mechanical properties at www.ecophon.com.



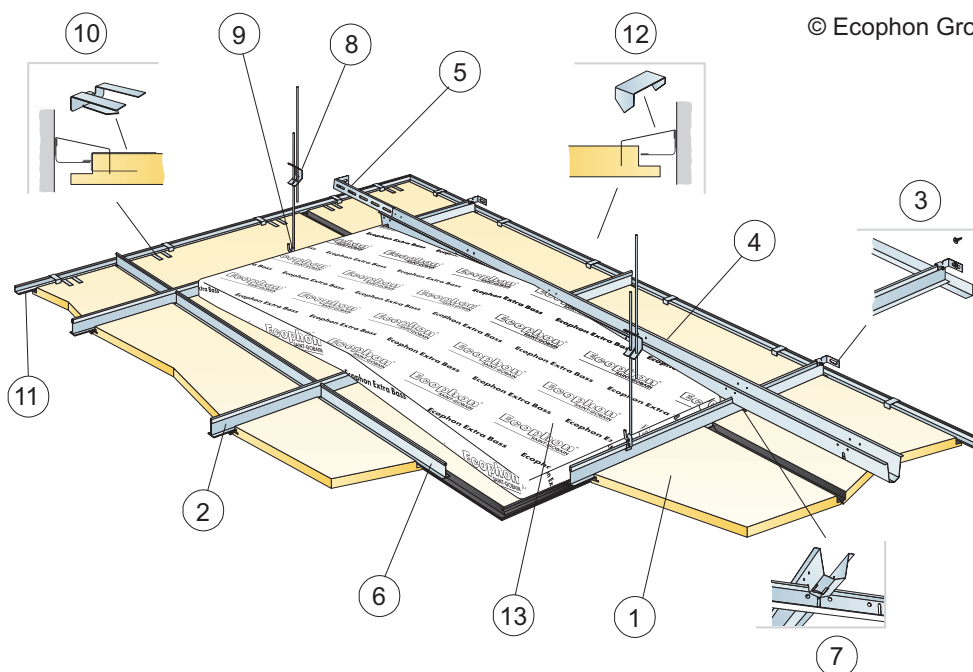
Installation

Installed according to installation diagrams, installation guides and drawing aid. (The tiles have to be installed according to the arrows on the back of the tile.)



CE

The CE marking confirms important product performance such as sound absorption, emissions, fire safety and load bearing capacity. All Ecophon ceiling products are CE marked according to European standard EN13964, and individual product performance is declared in Declaration of Performance (DoP) documents.

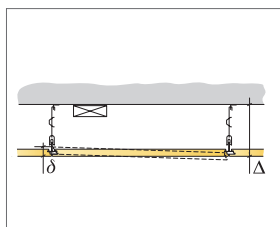


QUANTITY SPECIFICATION (EXCL. WASTAGE)

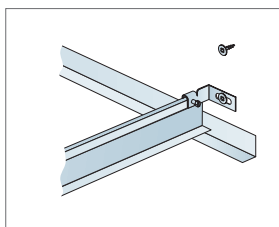
		Size, mm	
		600x600	1200x600
1	Sombra Ds	2,8/m ²	1,4/m ²
2	Connect T24 Main runner HD, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
3	Connect Wall bracket for T-profiles	1/row of suspended Main runner HD	
4	Connect Space bar, installed at 1500 mm centres (max. distance from wall 300 mm)	0,7m/m ²	0,7m/m ²
5	Connect Wall bracket, L=700 mm, for Space bar	1/row of Space bar	
6	Connect T24 Cross tee, L=600 mm	2/row of Main runner HD	
7	Connect Space bar winch, installed one per joint Main runner/Space bar	1,4/m ²	1,4/m ²
8	Connect Adjustable hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²
9	Connect Hanger clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
10	Connect Support clip DG20	1/300-400mm on any cut edge	
11	Connect Angle trim black, fixed at 300 mm centres	as required	as required
12	Connect Perimeter tile clip	1/300-400mm on any cut edge	
13	Extra Bass (1200x600x50 mm)	0,6/m ²	0,6/m ²

Δ Min. overall depth of system: 105 mm

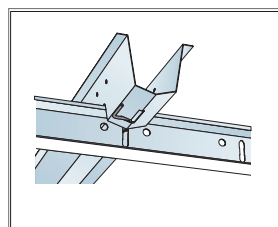
δ Min. demounting depth: 30 mm



See Quantity specification



Connection between profiles with split pin



Connection between profiles with space bar winch

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

Live load/load bearing capacity