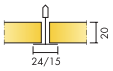
# Ecophon Focus™ A

*Ecophon Focus™ A has an exposed grid system with easily demountable tiles. For applications where a robust suspended ceiling system is required. Improves absorption in the low frequency range, Ecophon Extra Bass can be installed on top of the suspended ceiling.*

DSB Werkbedrijf, Nijmegen, Netherlands

## SYSTEM RANGE




| Size, mm | 600x600 | 625x625 | 1200x600 | 1200x1200 | 1250x625 | XL 1600x600 | XL 1800x600 | XL 2000x600 | XL 2400x600 |
|---|---|---|---|---|---|---|---|---|---|
| Connect T15 | • | | • | • | | | | | |
| Connect T24 | • | • | • | • | • | • | • | • | • |
| T24 | • | | • | • | | | | | |
| Thickness (THK) | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Inst. Diagr. | M01, M399 | M01 DIN | M01, M399 | M01 | M01 DIN | M16, M46 | M16, M46 | M16, M46 | M16, M46 |

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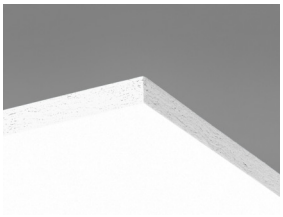
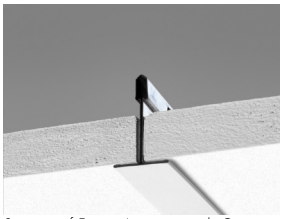
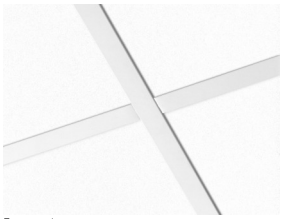


Focus A tile



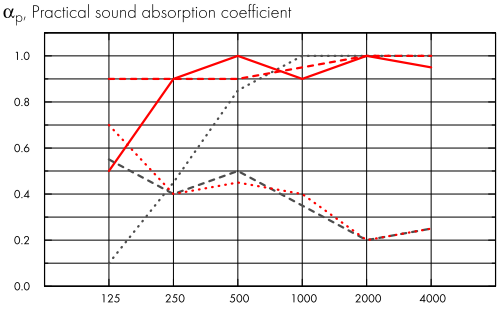
Section of Focus A system with Connect T24



Focus A 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.




···· Focus A 20 mm, 50 mm o.d.s.

– Focus A 20 mm, 200 mm o.d.s.

--- Focus A 20 mm + Extra Bass 50 mm, 200 mm o.d.s.

--- Focus A gamma 20 mm, 200 mm o.d.s.

···· Focus A gamma 20 mm + Extra Bass 50 mm, 200 mm o.d.s.

o.d.s = overall depth of system

| | THK mm | o.d.s. mm | $\alpha_p$, Practical sound absorption coefficient | | | | | | $\alpha_w$ | Sound absorption class |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | | |
| - | 20 | 50 | 0.10 | 0.45 | 0.85 | 1.00 | 1.00 | 1.00 | 0.75 | C |
| - | 20 | 200 | 0.50 | 0.90 | 1.00 | 0.90 | 1.00 | 0.95 | 1.00 | A |
| + Extra Bass, | 70 | 200 | 0.90 | 0.90 | 0.90 | 0.95 | 1.00 | 1.00 | 0.95 | A |
| gamma | 20 | 200 | 0.55 | 0.40 | 0.50 | 0.35 | 0.20 | 0.25 | 0.30 | D |
| gamma+ Extra Bass | 70 | 200 | 0.70 | 0.40 | 0.45 | 0.40 | 0.20 | 0.25 | 0.30 | D |

| | THK mm | o.d.s. mm | NRC | SAA |
|---|---|---|---|---|
| - | 20 | 50 | 0.85 | 0.83 |
| - | 20 | 200 | 0.95 | 0.93 |
| + Extra Bass, | 70 | 200 | 0.93 | 0.93 |
| gamma | 20 | 200 | 0.35 | 0.36 |
| gamma+ Extra Bass | 70 | 200 | 0.35 | 0.37 |
| - | 20 | 400 | 0.85 | 0.88 |

| THK mm | AC(1.5)<br>Articulation Class, ASTM E1111, ASTM E1110 | $D_{nfw}$<br>Weighted normalized flanking level difference, ISO 10848-2 | CAC dB<br>Ceiling Attenuation Class, ASTM 1414, ASTM E413 |
|---|---|---|---|
| 20 | 190 | 20 | 21 |

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## Indoor Air Quality

| Certificate / Label | Standard | Plant |
|---|---|---|
| Eurofins Indoor Air Comfort® | IAC | IAC Gold |
| French VOC | A | A+ |
| Finnish M1 | • | • |

## Environmental Footprint

| | kg $CO_2$ equiv/m² |
|---|---|
| Focus A | 2,6 |
| Focus A/Plant | 1,81 |

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

## Circularity

| | |
|---|---|
| Minimum post-consumer recycled content | 51% |
| Recyclability | Fully recyclable |

## 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.

## Humidity Resistance

| Product | |
|---|---|
| Standard | Class C, RH 95% and 30°C |
| Plant | Class A, RH 70% and 25°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.

## System weight

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

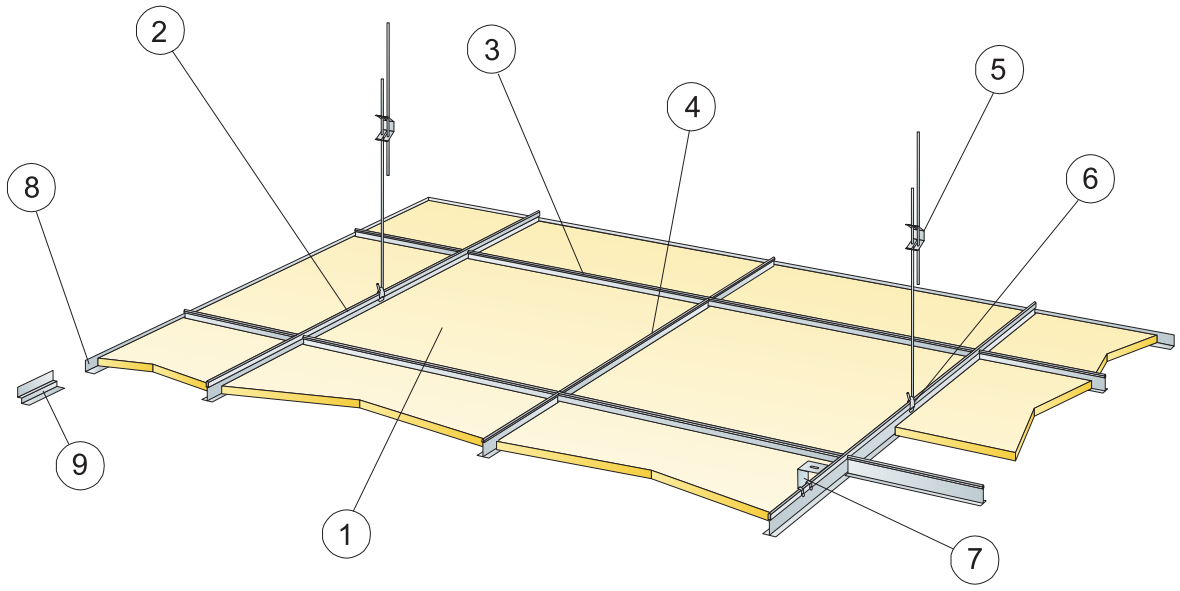
## Mechanical properties

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

## 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.

## INSTALLATION DIAGRAM (M01) FOR ECOPHON FOCUS A

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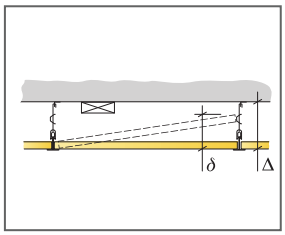
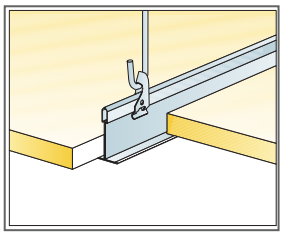
## QUANTITY SPECIFICATION (EXCL. WASTAGE)

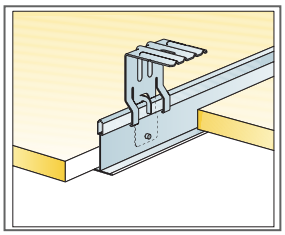
| | Size, mm | | |
|---|---|---|---|
| | **600x600** | **1200x600** | **1200x1200** |
| 1 Focus A | 2,8/m² | 1,4/m² | 0,7/m² |
| 2 Connect T24 or T15 Main runner, installed at 1200 mm centres (max. distance from wall 600 mm, can be extended up to 1200 mm if no live load between Main runner and wall). | 0,9m/m² | 0,9m/m² | 0,9m/m² |
| 3 Connect T24 or T15 Cross tee, L=1200 mm, installed at 600 mm centres | 1,7m/m² | 1,7m/m² | 0,9m/m² |
| 4 Connect T24 or T15 Cross tee, L=600 mm | 0,9m/m² | - | - |
| 5 Connect Adjustable hanger, installed at 1200 mm centres (max. distance from wall 600 mm) | 0,7/m² | 0,7/m² | 0,7/m² |
| 6 Connect Hanger Clip (not to be used in swimming hall environments) | 0,7/m² | 0,7/m² | 0,7/m² |
| 7 For direct installation: Connect Direct Bracket, installed at 1200 mm centres | 0,7/m² | 0,7/m² | 0,7/m² |
| 8 Connect Angle trim, fixed at 300 mm centres | as required | as required | as required |
| 9 Connect Shadow-line trim, fixed at 300 mm centres | as required | as required | as required |
| Δ Min. overall depth of system, with adjustable hanger: 100 mm, with direct bracket: 50 mm | - | - | - |
| δ Min. demounting depth: 120 mm (130 mm with 1200x1200) | - | - | - |
| For luminaire integration in panels use Connect Bridging | - | - | - |
| When using panels in format 1200x1200 mm and XL-format in combination with T15 grid, secure grid with wall brackets | - | - | - |




See Quantity specification



Suspension with adjustable hanger and clip

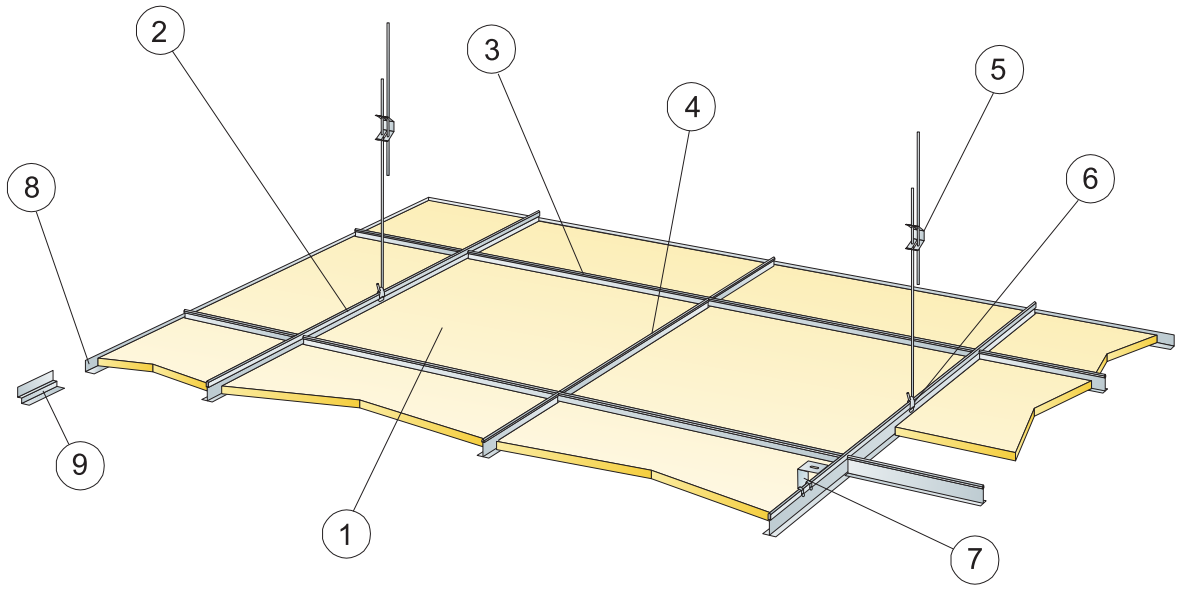


Suspension with direct bracket

| Size, mm | Max live load (N) | Min load bearing capacity (N) |
|---|---|---|
| 600x600x20 | 50 | 160 |
| 1200x600x20 | 50 | 160 |
| 1200x1200x20 | 50 | 160 |

Live load/load bearing capacity

## INSTALLATION DIAGRAM (M01) FOR ECOPHON FOCUS A

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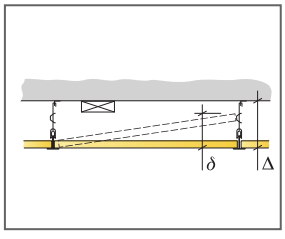
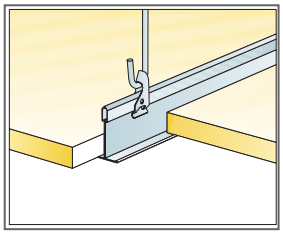
## QUANTITY SPECIFICATION (EXCL. WASTAGE)

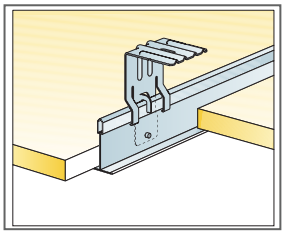
| | | Size, mm | |
|---|---|---|---|
| | | **625x625** | **1250x625** |
| 1 | Focus A | 2,6/m² | - |
| 2 | Connect T24 Main Runner, installed at 1250 mm centres for DIN (only white profiles) | 0,8m/m² | 0,8m/m² |
| 3 | Connect T24 or T15 Cross Tee, L=1250 mm, installed at 625 mm centres | 1,6m/m² | 1,6m/m² |
| 4 | Connect T24 or T15 Cross Tee, L=625 mm | 0,8m/m² | - |
| 5 | Connect Adjustable Hanger, installed at 1250 mm centres (max. distance from wall 600 mm) | 0,7/m² | 0,7/m² |
| 6 | Connect Hanger Clip (not to be used in swimming hall environments) | 0,7/m² | 0,7/m² |
| 7 | For direct installation: Connect Direct Bracket, installed at 1250 mm centres | 0,7/m² | 0,7/m² |
| 8 | Connect Angle trim, fixed at 300 mm centres | as required | as required |
| 9 | Connect Shadow-line trim, fixed at 300 mm centres | as required | as required |
| | Δ Min. overall depth of system, with adjustable hanger: 100 mm, with direct bracket: 50 mm | - | - |
| | δ Min. demounting depth: 120 mm | - | - |
| | For luminaire integration in panels use Connect Bridging | - | - |




See Quantity specification



Suspension with adjustable hanger and clip

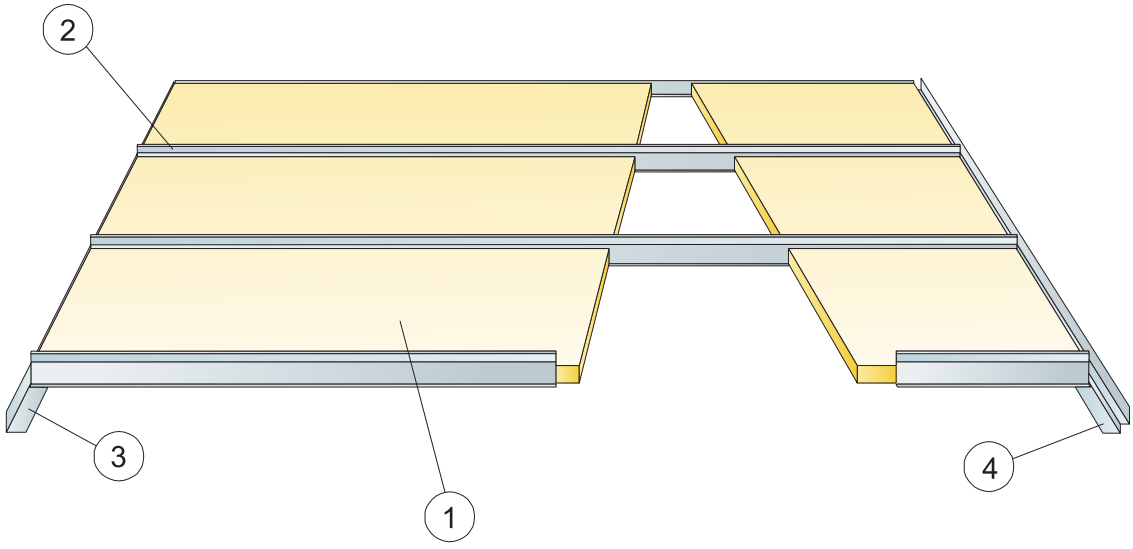


Suspension with direct bracket

| Size, mm | Max live load (N) | Min load bearing capacity (N) |
|---|---|---|
| 625x625x20 | 40 | 160 |
| 1250x625x20 | - | - |

Live load/load bearing capacity

## INSTALLATION DIAGRAM (M16) FOR ECOPHON FOCUS A XL IN CORRIDORS

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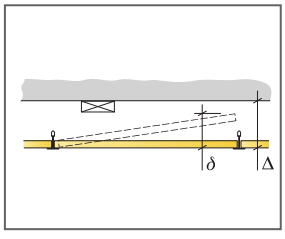
## QUANTITY SPECIFICATION (EXCL. WASTAGE)

| | | Size, mm | | | |
|---|---|---|---|---|---|
| | | **1600x600** | **1800x600** | **2000x600** | **2400x600** |
| 1 | Focus A | 1,05/m² | 0,95/m² | 0,85/m² | 0,7/m² |
| 2 | Connect T24 Corridor profile, installed at 600 mm centres | 1,05/m² | 0,95/m² | 0,85/m² | 0,7/m² |
| 3 | Connect Angle trim, fixed at 200 mm centres | as required | as required | as required | as required |
| 4 | Connect Shadow-line trim, fixed at 200 mm centres | as required | as required | as required | as required |
| | Δ Min. overall depth of system: 40 mm | - | - | - | - |
| | δ Min. demounting depth: 65 mm | - | - | - | - |

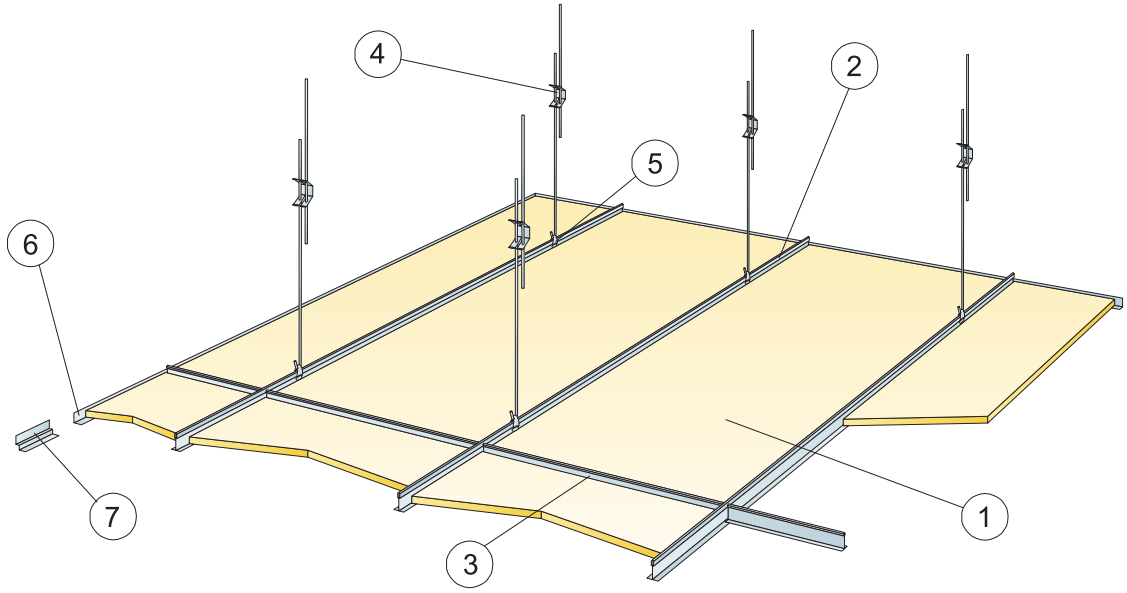



See Quantity specification

| Size, mm | Max live load (N) | Min load bearing capacity (N) |
|---|---|---|
| 1600x600x20 | 40 | - |
| 1800x600x20 | 20 | - |
| 2000x600x20 | 10 | - |
| 2400x600x20 | 0 | - |

Live load/load bearing capacity

## INSTALLATION DIAGRAM (M46) FOR ECOPHON FOCUS A XL

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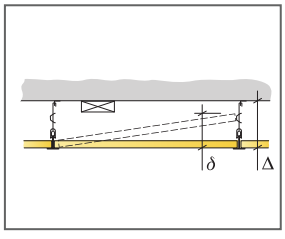
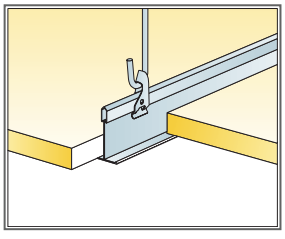
## QUANTITY SPECIFICATION (EXCL. WASTAGE)

| | | Size, mm | | | |
|---|---|---|---|---|---|
| | | **1600x600** | **1800x600** | **2000x600** | **2400x600** |
| 1 | Focus A | 1,05/m² | 0,95/m² | 0,85/m² | 0,7/m² |
| 2 | Connect T24 Main runner, installed at 600 mm centres | 1,7m/m² | 1,7m/m² | 1,7m/m² | 1,7m/m² |
| 3 | Connect T24 Cross tee, L=600 mm | 0,65m/m² | 0,6m/m² | 0,5m/m² | 0,45m/m² |
| 4 | Connect Adjustable hanger, installed at 1500 mm centres (max. distance from wall 450 mm) | 1,1/m² | 1,1/m² | 1,1/m² | 1,1/m² |
| 5 | Connect Hanger clip | 1,1/m² | 1,1/m² | 1,1/m² | 1,1/m² |
| 6 | Connect Angle trim, fixed at 300 mm centres | as required | as required | as required | as required |
| 7 | Connect Shadow-line trim, fixed at 300 mm centres | as required | as required | as required | as required |
| | Δ Min. overall depth of system: 100 mm | - | - | - | - |
| | δ Min. demounting depth: 100 mm | - | - | - | - |




See Quantity specification

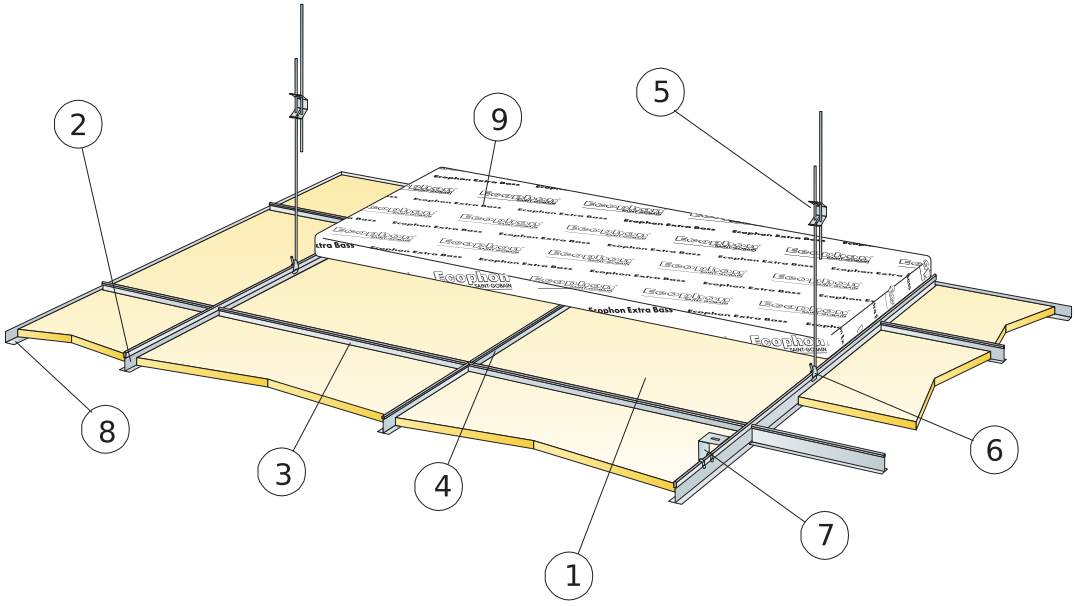


Suspension with adjustable hanger and clip

| Size, mm | Max live load (N) | Min load bearing capacity (N) |
|---|---|---|
| 1600x600x20 | 50 | 160 |
| 1800x600x20 | 50 | 160 |
| 2000x600x20 | 50 | 160 |
| 2400x600x20 | 50 | 160 |

Live load/load bearing capacity

## INSTALLATION DIAGRAM (M399) FOR ECOPHON FOCUS A

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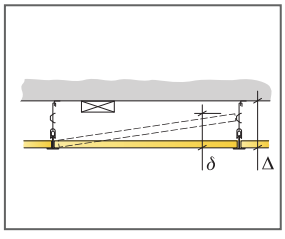
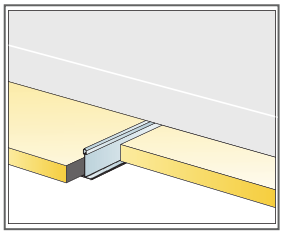
## QUANTITY SPECIFICATION (EXCL. WASTAGE)

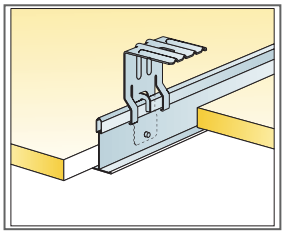
| | Size, mm | |
|---|---|---|
| | **600x600** | **1200x600** |
| 1 Focus A | 2,8/m² | 1,4/m² |
| 2 Connect T24 Main runner black, installed at 1200 mm centres (max. distance from wall 600 mm, can be extended up to 1200 mm if no live load between Main runner and wall). | 0,9m/m² | 0,9m/m² |
| 3 Connect T24 Cross tee black, L=1200 mm, installed at 600 mm centres | 1,7m/m² | 1,7m/m² |
| 4 Connect T24 Cross tee black, L=600 mm | 0,9m/m² | - |
| 5 Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm) | 0,7/m² | 0,7/m² |
| 6 Connect Hanger Clip (not to be used in swimming hall environments) | 0,7/m² | 0,7/m² |
| 7 For direct installation: Connect Direct Bracket, installed at 1200 mm centres | 0,7/m² | 0,7/m² |
| 8 Connect Angle trim black, (fixed at 300 mm centres) | as required | as required |
| 9 Extra Bass (1200x600x50 mm) | 0,7/m² | 0,7/m² |
| Δ Min. overall depth of system: Focus A: 50 mm (Direct bracket). Focus A/with Extra bass: 100 mm. | - | - |
| δ Min. demounting depth: Focus A: 130 mm, Focus A/with Extra bass: 170 mm | - | - |




See Quantity specification



Installation with Extra Bass



Suspension with adjustable hanger and clip

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

Live load/load bearing capacity