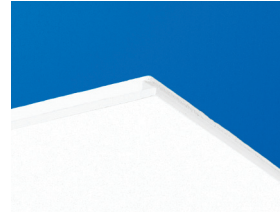
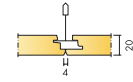




# Ecophon Focus™ Ds

For applications where a suspended ceiling with a concealed grid is required, but individual tiles must be easily demountable. Ecophon Focus Ds has a concealed grid and symmetrical edge design, allowing easier assembly, integration of light fittings and ventilation. The ceiling has an even appearance, with the bevelled edges forming a discreet groove between the tiles. The tiles are easily demountable.

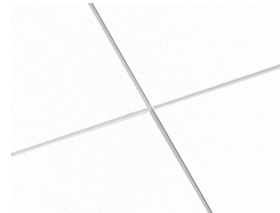
The system consists of Ecophon Focus Ds tiles and Ecophon Connect grid systems, with an approximate weight of 3-4 kg/m<sup>2</sup>. The tiles are manufactured from high density glass wool utilizing the 3RD Technology. The visible surface has an Akutex™ FT coating and the back of the tile is covered with glass tissue. The edges are painted. For best performance and system quality, use Ecophon Connect grid and accessories. The grid is manufactured from galvanized steel. The system is patented.



Focus Ds tile



Section of Focus Ds system with Connect T24 main runner HD



Focus Ds system



The individual tiles are easily demountable

## SYSTEM RANGE

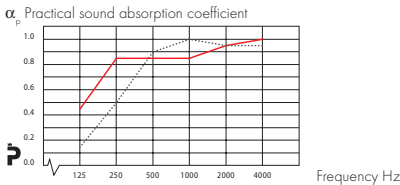
| Size, mm    | 600           | 1200          | 1200 | 1600                   | 1800                   | 2000                   | 2400                   |
|-------------|---------------|---------------|------|------------------------|------------------------|------------------------|------------------------|
|             | x             | x             | x    | x                      | x                      | x                      | x                      |
|             | 600           | 600           | 1200 | 600                    | 600                    | 600                    | 600                    |
| T24         | •             | •             | •    | •                      | •                      | •                      | •                      |
| Thickness   | 20            | 20            | 20   | 20                     | 20                     | 20                     | 20                     |
| Inst. Diag. | M206,<br>M208 | M206,<br>M208 | M207 | M206,<br>M208,<br>M238 | M206,<br>M208,<br>M238 | M206,<br>M208,<br>M238 | M206,<br>M208,<br>M238 |

## TECHNICAL PROPERTIES

### ACOUSTIC

Sound Absorption: Test results according to EN ISO 354.

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



— Ecophon Focus Ds 200 mm o.d.s.  
 ..... Ecophon Focus Ds 60 mm o.d.s.  
 o.d.s = overall depth of system

| Product        | Focus Ds |      |      |      |
|----------------|----------|------|------|------|
|                | 60       | 75   | 200  | 400  |
| o.d.s mm       | 60       | 75   | 200  | 400  |
| Class          | B        | A    | A    | A    |
| α <sub>w</sub> | 0,80     | 0,90 | 0,90 |      |
| NRC            | 0,90     | -    | -    | 0,80 |
| SAA            | 0,90     | -    | -    | 0,82 |

Sound Insulation: D<sub>nT,w</sub>=24 dB according to ISO 140-9 and evaluation according to EN ISO 717-1. CAC=25 dB according to ASTM E 1414 and evaluation according to ASTM E 413.

Sound Privacy: AC(1.5)=180 according to ASTM E 1111 and E 1110.

**ACCESSIBILITY** The tiles in size 600x600 and 1200x600 are easily demountable. The tiles in size 1200x1200 and XL sizes are 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/(m<sup>2</sup>lx). 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** Certified by the Indoor Climate Labelling, emission class M1 for building materials and recommended by the Swedish Asthma and Allergy Association.

**ENVIRONMENTAL INFLUENCE** Glass wool core utilising 3RD Technology. Granted the Nordic Swan eco-label. Fully recyclable.

**FIRE SAFETY** 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.

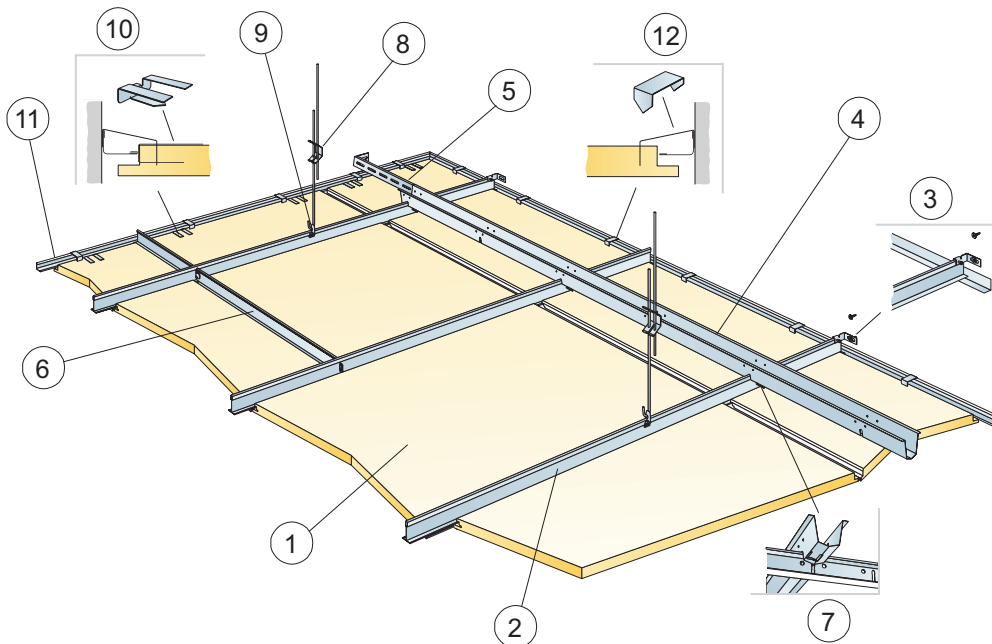
Reaction-to-fire classification

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

**MECHANICAL PROPERTIES** See table about Max live load and Min load bearing capacity and Functional demands, Mechanical properties at [www.ecophon.com](http://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. The systems are not recommended for small rooms (approximately 2x2 m<sup>2</sup>). Ceilings with a large amount of integrations require careful planning, design and installation.

## INSTALLATION DIAGRAM (M206) FOR ECOPHON FOCUS DS 600X600, 1200X600 MM AND ECOPHON FOCUS DS XL. SUSPENDED INSTALLATION



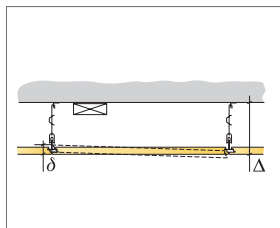
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### QUANTITY SPECIFICATION (EXCL. WASTAGE)

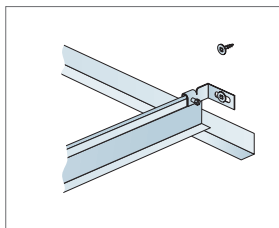
|    |  | Size, mm   |                     |                     |                     |                     |                     |
|----|--|--|---------------------|---------------------|---------------------|---------------------|---------------------|
|    |  | 600x600  | 1200x600            | 1600x600            | 1800x600            | 2000x600            | 2400x600            |
| 1  | Focus Ds   | 2,8/m <sup>2</sup>   | 1,4/m <sup>2</sup>  | 1,05/m <sup>2</sup> | 0,95/m <sup>2</sup> | 0,85/m <sup>2</sup> | 0,7/m <sup>2</sup>  |
| 2  | Connect T24 Main runner HD, installed at 600 mm centres                                  | 1,7m/m <sup>2</sup>  | 1,7m/m <sup>2</sup> | 1,7m/m <sup>2</sup> | 1,7m/m <sup>2</sup> | 1,7m/m <sup>2</sup> | 1,7m/m <sup>2</sup> |
| 3  | Connect Wall bracket for T-profiles  | 1 /every row of suspended Main runner HD                               |                     |                     |                     |                     |                     |
| 4  | Connect Space bar, installed at 1500 mm centres (max. distance from wall 300 mm)         | 0,7m/m <sup>2</sup>  | 0,7m/m <sup>2</sup> | 0,7m/m <sup>2</sup> | 0,7m/m <sup>2</sup> | 0,7m/m <sup>2</sup> | 0,7m/m <sup>2</sup> |
| 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   |                     |                     |                     |                     |                     |
| 7  | Connect Space bar winch, installed one per joint Main runner/ Space bar                  | 1,4/m <sup>2</sup>   | 1,4/m <sup>2</sup>  | 1,4/m <sup>2</sup>  | 1,4/m <sup>2</sup>  | 1,4/m <sup>2</sup>  | 1,4/m <sup>2</sup>  |
| 8  | Connect Adjustable hanger, installed at 1200 mm centres (max. distance from wall 600 mm) | 0,7/m <sup>2</sup>   | 0,7/m <sup>2</sup>  | 0,7/m <sup>2</sup>  | 0,7/m <sup>2</sup>  | 0,7/m <sup>2</sup>  | 0,7/m <sup>2</sup>  |
| 9  | Connect Hanger clip  | 0,7/m <sup>2</sup>   | 0,7/m <sup>2</sup>  | 0,7/m <sup>2</sup>  | 0,7/m <sup>2</sup>  | 0,7/m <sup>2</sup>  | 0,7/m <sup>2</sup>  |
| 10 | Connect Support clip DG20  | 1pc/300-400 mm on every cut perimeter tile with only 1 supporting edge |                     |                     |                     |                     |                     |
| 11 | Connect Angle trim 15/22, fixed at 300 mm centres  | as required  | as required         | as required         | as required         | as required         | as required         |
| 12 | Connect Perimeter tile clip  | 1 /300-400mm on any cut edge   |                     |                     |                     |                     |                     |

Δ Min. overall depth of system: 105 mm

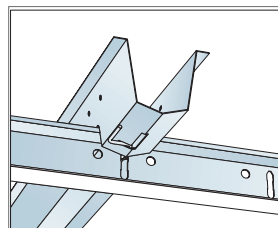
δ Min. demounting depth: 30 mm



See Quantity specification



Secured Main runner at wall with Connect Wall bracket

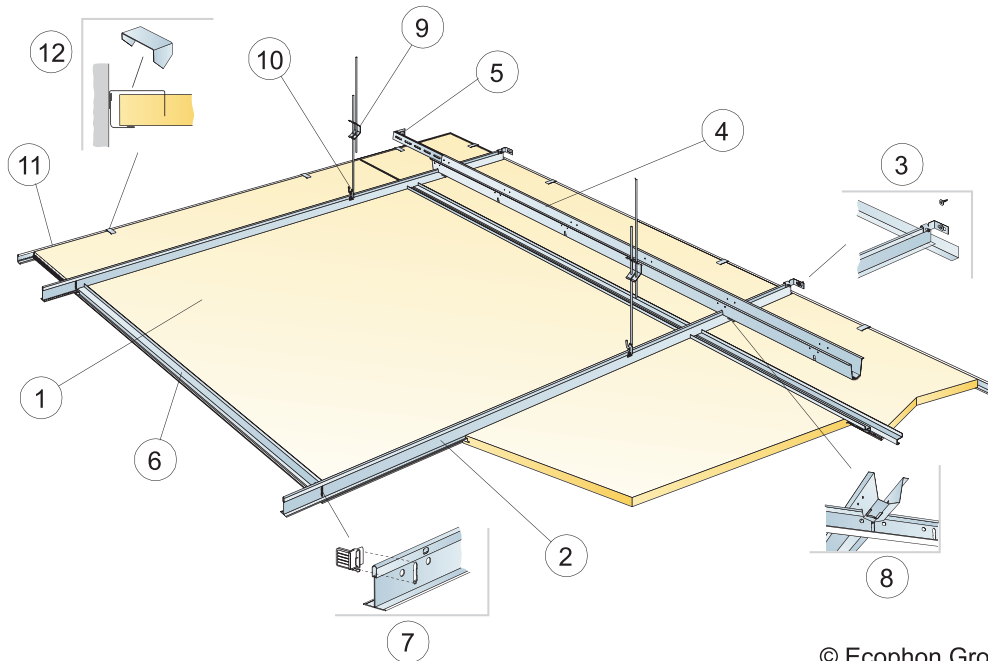


Connection between profiles with space bar winch

| Size, mm | Max live load [N] | Min load bearing capacity [N] |
|----------|-------------------|-------------------------------|
| 600x600  | 50                | 160                           |
| 1200x600 | 50                | 160                           |
| 1600x600 | 50                | 160                           |
| 1800x600 | 50                | 160                           |
| 2000x600 | 50                | 160                           |
| 2400x600 | 50                | 160                           |

Live load/load bearing capacity

## INSTALLATION DIAGRAM (M207) FOR ECOPHON FOCUS DS 1200X1200 MM



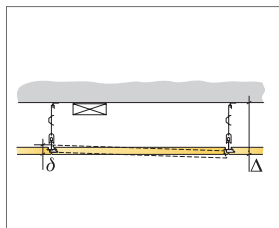
© Ecophon Group

### QUANTITY SPECIFICATION (EXCL. WASTAGE)

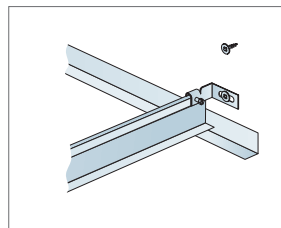
|    |  | <b>Size, mm</b>                             |
|----|--|---|
|    |  | <b>1200x1200</b>                            |
| 1  | Focus Ds   | 0,7/m <sup>2</sup>                          |
| 2  | Connect T24 Main runner HD, installed at 1200 mm centres (max. distance from wall 600 mm, can be extended up to 1200 mm if no live load between Main runner and wall). | 0,9m/m <sup>2</sup>                         |
| 3  | Connect Wall bracket for T-profiles  | 1 for every row of suspended Main runner HD |
| 4  | Connect Space bar, installed at 1500 mm centres (max. distance from wall 300 mm)   | 0,7m/m <sup>2</sup>                         |
| 5  | Connect Wall bracket, L=700 mm, for Space bar  | 1 for every row of Space bar                |
| 6  | Connect Edge stiffener   | 1,4/m <sup>2</sup>                          |
| 7  | Connect Stop clip  | 2 for every row of Main runner              |
| 8  | Connect Space bar winch, installed one per joint Main runner/Space bar   | 0,55/m <sup>2</sup>                         |
| 9  | Connect Adjustable hanger, installed at 1200 mm centres (max. distance from wall 600 mm)   | 0,7/m <sup>2</sup>                          |
| 10 | Connect Hanger clip  | 0,7/m <sup>2</sup>                          |
| 11 | Connect Angle trim 15/22, fixed at 300 mm centres  | as required                                 |
| 12 | Connect Perimeter tile clip  | 1 /300-400mm on any cut edge                |

Δ Min. overall depth of system: 105 mm

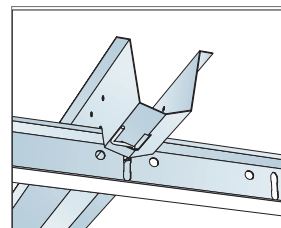
δ Min. demounting depth: 50 mm



See Quantity specification



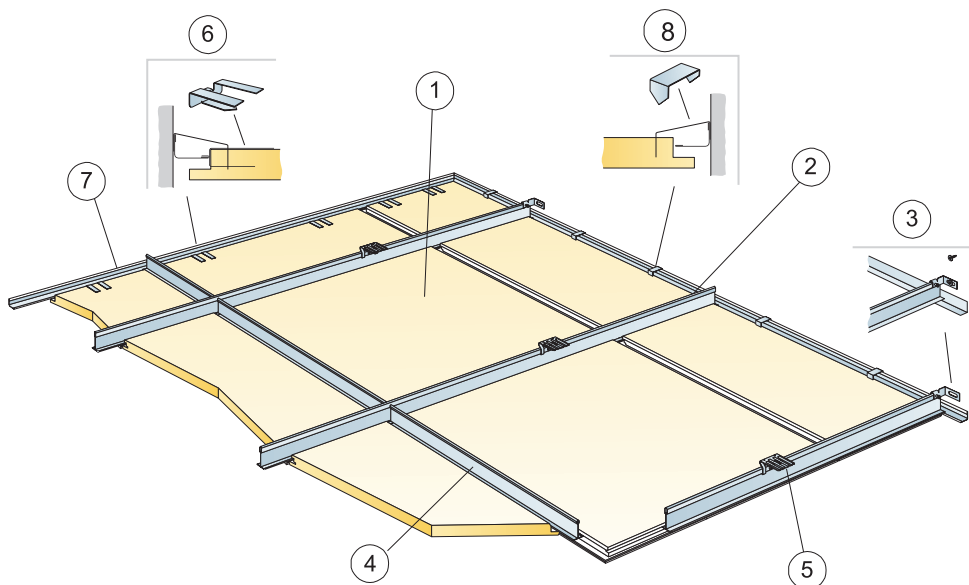
Secured Main runner at wall with Connect Wall bracket



Connection between profiles with space bar winch

| Size, mm  | Max live load [N] | Min load bearing capacity [N] |
|-----------|-------------------|-------------------------------|
| 1200x1200 | 50                | 160                           |

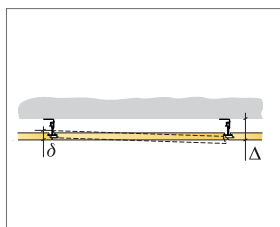
Live load/load bearing capacity



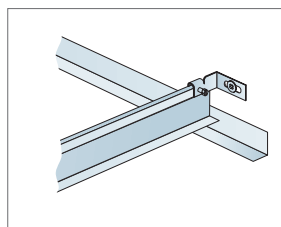
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### QUANTITY SPECIFICATION (EXCL. WASTAGE)

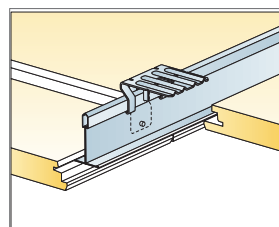
|   | Size, mm  |                     |                     |                     |                     |                     |
|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|
|   | 600x600   | 1200x600            | 1600x600            | 1800x600            | 2000x600            | 2400x600            |
| 1 Focus Ds  | 2,8/m <sup>2</sup>  | 1,4/m <sup>2</sup>  | 1,05/m <sup>2</sup> | 0,95/m <sup>2</sup> | 0,85/m <sup>2</sup> | 0,7/m <sup>2</sup>  |
| 2 Connect T24 Main runner HD, installed at 600 mm centres                   | 1,7m/m <sup>2</sup>   | 1,7m/m <sup>2</sup> | 1,7m/m <sup>2</sup> | 1,7m/m <sup>2</sup> | 1,7m/m <sup>2</sup> | 1,7m/m <sup>2</sup> |
| 3 Connect Wall bracket for T-profiles                                       | 1 for every row of suspended Main runner HD                             |                     |                     |                     |                     |                     |
| 4 Connect T24 Cross Tee, l=600  | 2/row of Main runner  |                     |                     |                     |                     |                     |
| 5 Connect Direct bracket, installed at 1500 mm centres                      | 1,1/m <sup>2</sup>  | 1,1/m <sup>2</sup>  | 1,1/m <sup>2</sup>  | 1,1/m <sup>2</sup>  | 1,1/m <sup>2</sup>  | 1,1/m <sup>2</sup>  |
| 6 Connect Support clip DG20   | 1 /300-400mm on any cut edge  |                     |                     |                     |                     |                     |
| 7 Connect Angle trim 15/22, fixed at 300 mm centres                         | as required   | as required         | as required         | as required         | as required         | as required         |
| 8 Connect Perimeter tile clip can be used if sufficient space is available. | 1 pc/300-400 mm on every cut perimeter tile with only 1 supporting edge |                     |                     |                     |                     |                     |
| Δ Min. overall depth of system: 65 mm                                       | -   | -                   | -                   | -                   | -                   | -                   |
| δ Min. demounting depth: 30 mm  | -   | -                   | -                   | -                   | -                   | -                   |



See Quantity specification



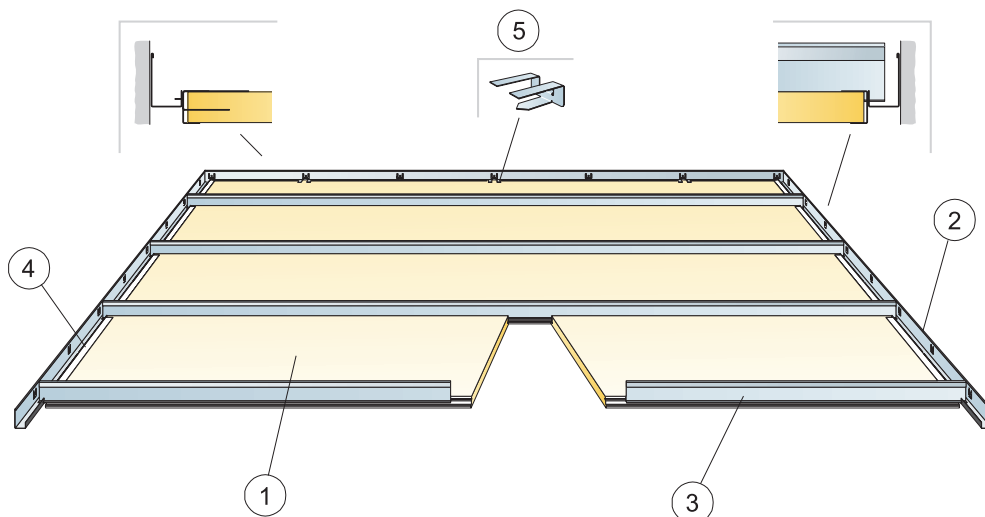
Secured Main runner at wall with Connect Wall bracket



Suspension with direct fix bracket

| Size, mm | Max live load [N] | Min load bearing capacity [N] |
|----------|-------------------|-------------------------------|
| 600x600  | 50                | 160                           |
| 1200x600 | 50                | 160                           |
| 1600x600 | 50                | 160                           |
| 1800x600 | 50                | 160                           |
| 2000x600 | 50                | 160                           |
| 2400x600 | 50                | 160                           |

Live load/load bearing capacity



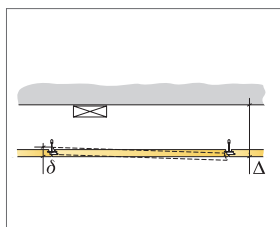
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### QUANTITY SPECIFICATION (EXCL. WASTAGE)

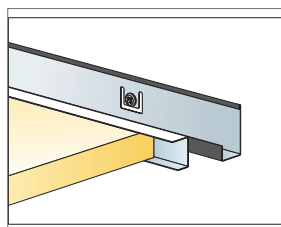
|                                   | Size, mm  |                     |                     |                    |
|-----------------------------------|---|---------------------|---------------------|--------------------|
|                                   | 1600x600  | 1800x600            | 2000x600            | 2400x600           |
| 1 Focus Ds XL                     | 1,05/m <sup>2</sup>   | 0,95/m <sup>2</sup> | 0,85/m <sup>2</sup> | 0,7/m <sup>2</sup> |
| 2 Connect Modular Wall trim       | as required   | as required         | as required         | as required        |
| 3 Connect T24 Corridor profile    | 1,05/m <sup>2</sup>   | 0,95/m <sup>2</sup> | 0,85/m <sup>2</sup> | 0,7/m <sup>2</sup> |
| 4 Connect Cover trim Ds           | 2/tile plus end tiles   |                     |                     |                    |
| 5 Connect Support clip Dg 20 0547 | 1 pc/300-400 mm on every cut perimeter tile with only 1 supporting edge |                     |                     |                    |

Δ Min. overall depth of system: 55 mm

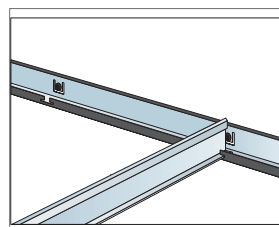
δ Min. demounting depth: 30 mm



See Quantity specification



Tile and Connect Cover trim Ds



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