Design and technique

Product description
Gyptone edge D2 is a pre-painted, acoustic suspended ceiling mounted in a concealed 24 mm grid system. The ceiling can be used for many applications like schools, offices and commercial settings. Gyptone edge D2 is a fully demountable ceiling. The product is subject to full recycling as raw material for new plaster boards. Gyptone edge D2 is available with perforated and non-perforated surface. Thickness is 12.5 mm and the format is 600 x 600 mm.

Plenum height
Minimum and maximum plenum heights with API grid system, is to be found on page 7.

Surfaces
The D2 tiles surface is painted from the factory. Each Gyptone D2 is painted with the color NCS0500, with a gloss value of 5-7 according to ISO 2813. Future treatment is to be executed with a shorthair roller as spray painting will impair the acoustic performance.

Grid system
Gyptone edge D2 is installed in a API Grid System, called Cross-Lock Unipro. The system is suspended and need the hangers suitable for the system. Gyptone edge D2 needs to be installed in accordance with this installation manual as well as the general specification of the project. Estimated consumption of grid system is to be found on page 7.

Fire resistance
A2-s1, d0.

Load
Gyptone edge D2 has a maximum point load of 1 kg for each tile, with a deflection of max. 2 mm. If installations with a higher load is required in an D2 ceiling, the installation should be fixed to the slab above with dedicated suspensions. Maximum load equally spread on the main beams is 2 kg/m for the 24 mm Cross-Lock Unipro system. Maximum point load for the grid is 0.5 kg.

Stability
Gyptone edge D2 is to be installed and used in rooms with relative humidity not exceeding permanently 70% or temperatures exceeding 45 degrees celcius.

Weight
Non perforated Gyptone D2 approx 9 kg/m²
Perforated Gyptone D2 approx 8 kg/m²

Cleaning and handling
Can be cleaned with a damp cloth. Do not use hard detergents. Always use gloves when installing Gyptone edge D2.

Maintenance
If damages on edges or surfaces occurs, the best solution is the replace the damaged D2 tile, with a new one.
The placement of the wall angle should be marked with a bubble level/chalk line and mounted with a flatheaded screw suitable for the foundation per max. 300 mm, the first screw one no more than 50 mm from a corner. The wall angle should not be shorter than 300 mm. Cut the profiles in close mitre at the corner joint. If the foundation is uneven mount a thin wooden list behind the wall angle.

Hangers for the main beams should be placed in rows per 1200 mm. The first main beam max. 300 mm from the wall. First hanger in main beam max. 300 mm. from the wall. The other hangers per max. 1200 mm. See page 4. The hook of the hanger is squeezed together with a pair of Pliers. The hangers should be adjusted, so the main beam is elevated 44 mm above the wall angle. How to planning the grid system, look at page 5.

At the longitudinal assembly of the main beams the couplings should be pushed together until they click.

The cross-lock connectors are to be placed with a center distance of 600 mm on the main beam (maximum 600 mm from the wall). The tap in the connector should aligned with the vertically slot in the main beam. The connectors should be pushed down on the main beam until they click.

Connect the cross profile to the main beam, by twisting the cross profile onto the cross-lock connector. This is done by placing the legs of the connector into the dedicated cut-outs on the cross profile.

For safety and for a stabile connection between the main beam and the cross profile, fold the locking mechanism on the cross lock connector with a pair of Pliers.
Gyptone Edge D2™ system

Installation of API Cross-Lock Unipro and Gyptone Edge D2

Prior to installation it is recommended to read the manual thoroughly.

When installing the Gyptone edge D2, use cotton gloves. Lift one side of the tile, the E edge, up above the cross profile. Then slide the opposite side of the tile, the D2 edge, into the opposite cross profile. When the tile is mounted in the grid system, it can be slide into place. Be careful not to damage the tiles during installation. All tiles a demountable after installation. All installations should be finished before mounting the D2 tiles. Always start in the center of the room, when laying the tiles into the grid system, look at page 5.

The last tile against the wall, should be cut into size with either a saw or a knife. It is important to protect the front side of the tile, to avoid any damage to the painted surface. The tiles should not be cut with an undersized of more than max. 5 mm.

This means that the cross profiles and main beams are located above the wall angle. Ones the grid system is adjusted, every second main beam should be connected to the wall with a connecting bracket. This is due to better stability in the grid system.

When mounting the last tile against the wall, place 2 wall springs for each tile. The short side of the spring is squeezed down between the wall angle and the wall. The wall springs is installed before the last tiles are laid into the grid system.

Gyptone edge D2 installed in concealed Cross-Lock Unipro 24 mm grid system.
Gyptone Edge D2™ system

Gyptone Edge D2

Location of edge D2 on tiles, affected by the direction of the pattern

<table>
<thead>
<tr>
<th>Edge location on tiles</th>
<th>B 1+3</th>
<th>E 2</th>
<th>D2 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line 4</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Point 12</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Quattro 22</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

All of the Gyptone perforations comes with edge D2, but only the 3 patterns shown above, is affected by the direction.
Gyptone Edge D2™ system
Planning and execution of grid and tile installation
Prior to installation it is recommended to read the manual thoroughly.

**Ceiling planning main beams.**
Find the dimensions and the center of the room. Then plan out where to place the main beams, relative to the center of the room.

Place the main beams with a center distance of 1200 mm out towards the walls.

When cutting the main beam, be aware of where the beam is divided relative to the cutouts in the beam. These cutouts need to be in correct distance to the walls, to achieve the decided size of the frieze. See illustration below.

**Ceiling planning Frieze.**
Measure the room and plan out the size of the frieze (distance Y). In the main beams there are cutouts for the Cross-Lock connector, at each 150 mm. Cut the main beam in one end so the cutouts in the main beam will fit with the cross profile deciding the width of the frieze. This will lead to that the cross profile deciding the frieze width in the opposite side of the room, will be located 24 mm further away from the wall.

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**Notes:**
- **Y** is the distance to the frieze.
- **X** is the center distance of the main beams.
- **Z** is the maximum distance to the wall.
Gyptone Edge D2™ system
Gyptone Edge D2 – Good advice

Corners with wall angle

Butt joint
Mitre joint
Overlap joint

How to handle the tile box on site

How to open a box without damaging the tiles

Max load pr. tile 1 kilo

Placing the wall springs
Result with wall springs
Result without wall springs
Gyptone Edge D2™ system

Checklist for mounting of grid system and Gyptone edge D2 ceiling tiles
Prior to installation it is recommended to read the manual thoroughly.

- Humidity in the room should not exceed 70% during installation or usage.
- Fix wall angles to the wall with a max of 300 mm distance between the screws.
- Hangers should be at every 1200 mm. First hanger should be max. 300 mm from the wall.
- Main beams are placed with a cc distance of 1200 mm and cross profiles with a cc distance of 600 mm.
- Cross profiles should be held 6 mm above the wall angle.
- Use 2 wall springs per tile facing the wall.
- Gyptone edge D2 tiles have a max load capacity of 1kg

Estimated consumption, suspended installation of grid system (10 x 10 m)

<table>
<thead>
<tr>
<th>Items</th>
<th>Term</th>
<th>Length mm</th>
<th>cc mm</th>
<th>Usage /m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Main beam Unipro</td>
<td>4118181 / 5200670312</td>
<td>3600</td>
<td>1200</td>
<td>0,9</td>
</tr>
<tr>
<td>2  Cross profile Unipro</td>
<td>4118181 / 5200670312</td>
<td>3600</td>
<td>600</td>
<td>1,7</td>
</tr>
<tr>
<td>3  Wall angle</td>
<td>4140017 / 5200413156</td>
<td>3600</td>
<td>–</td>
<td>measurment</td>
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<tr>
<td>4  Cross-Lock connector</td>
<td>4207005 / 5200670315</td>
<td>–</td>
<td>1200 x 600</td>
<td>1,5</td>
</tr>
<tr>
<td>5  Hanger</td>
<td>–</td>
<td>–</td>
<td>1200 x 1200</td>
<td>0,69</td>
</tr>
<tr>
<td>6  Connection bracket</td>
<td>4000013 / 5200670317</td>
<td>–</td>
<td>–</td>
<td>0,05</td>
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<tr>
<td>7  Wall spring</td>
<td>5200413129</td>
<td>–</td>
<td>–</td>
<td>3.3 pcs. pr. m. wall angle</td>
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</table>

T-grid cross lock system with adjustable hangers

<table>
<thead>
<tr>
<th>T-24</th>
<th>Adjustable 115-150</th>
<th>Min. height</th>
<th>195</th>
<th>mm</th>
<th>Max. height</th>
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<th>mm</th>
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<tbody>
<tr>
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<td>Adjustable 165-250</td>
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<td>T-24</td>
<td>Adjustable 190-300</td>
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<td>T-24</td>
<td>Adjustable 340-600</td>
<td>Min. height</td>
<td>420</td>
<td>mm</td>
<td>Max. height</td>
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<td>mm</td>
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<td>T-24</td>
<td>Adjustable 540-1000</td>
<td>Min. height</td>
<td>620</td>
<td>mm</td>
<td>Max. height</td>
<td>1095</td>
<td>mm</td>
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<tr>
<td>T-24</td>
<td>Adjustable 1040-1300</td>
<td>Min. height</td>
<td>1120</td>
<td>mm</td>
<td>Max. height</td>
<td>1395</td>
<td>mm</td>
</tr>
<tr>
<td>T-24</td>
<td>Adjustable 1040-1500</td>
<td>Min. height</td>
<td>1120</td>
<td>mm</td>
<td>Max. height</td>
<td>1595</td>
<td>mm</td>
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</tbody>
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ISO and OHSAS
Gyproc A/S has a quality management system, which is certified by BVOI Denmark A/A according to the demands in ISO 9001, 14001 og OHSAS 18001.