

Tate Asia-Pacific Pty Ltd.

Tate Grid+ LEC Structural Ceiling Grid

SECTION 09 54 00 SPECIALTY CEILINGS



PART 1. GENERAL

1.1 WORK INCLUDED

A. Section Includes: Extruded aluminium suspended ceiling grid system including:

1. Aluminium ceiling grid.
2. Grid connectors and fasteners.
3. Wall angle and edge trim.

1.2 DESIGN REQUIREMENTS

A. Ceiling system shall be capable of directly supporting cable trays, utilities, light fixtures, HVAC registers and other accessories as indicated per area of work.

1.3 WARRANTY

A. Warranty terms are project-specific and aligned to meet required warranty periods. Coverage is subject to the structural ceiling being periodically inspected and maintained in accordance with the project's operation and maintenance manual.

1.4 SUSTAINABILITY

A. Tate Grid+ LEC Structural Ceiling grid is made with lower carbon raw materials. LEC refers to Lower embodied Carbon. Tate Grid+ LEC has achieved 62% reduction in embodied carbon across modules A-C and a 56% reduction in embodied carbon across modules A1 - A3 when compared to the standard product verified to EN15804+ A2:2019 standard. Environmental claims are supported by a third party verified Environmental Product Declaration (EPD number HUB-2130) to the latest EN1504+A2 standard.

B. The Tate Grid+ LEC ceiling grid is designed with a strong focus on environmental performance, contributing to LEED v4.1 Interior Design and Construction (ID+C) credits. Tate's lower carbon manufacturing processes and responsible sourcing supports the following LEED criteria:

LEED Credit	How Tate Grid+ LEC Ceiling System Meets the Requirement
Interiors Life-Cycle Impact Reduction (Option 2: 1-2 points)	The Tate Grid+ LEC ceiling grid is designed with structural strength and flexibility in mind. Using mechanical fixings, the system can be removed and recycled.
Environmental Product Declarations (Option 1 and 2: 1-2 points)	The Tate Grid+ LEC Ceiling grid meets LEED requirements for Environmental Product Declarations. Its EPD (EPD number HUB-2130) is independently verified and complies with EN 15804+A2:2019 and ISO 14025.
Responsible Sourcing of Raw Materials (1-2 points)	Unable to meet requirements at this time
Material Ingredient Reporting (1-2 points)	For transparency in material ingredients, the Tate Grid+ LEC Ceiling grid is verified in line with Health Product Declaration HPD 1639181312.
Low emitting materials (1-3 points)	Unable to meet requirements at this time. VOC test certificate available from January 2025.

For any product specific documentation to support LEED ID+C v 4.1 please contact Tate Technical Support.

PART 2. PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: Product specified is the Tate Grid+LEC structural ceiling grid & shall be factory as manufactured by Tate Asia-Pacific Pty Ltd.

2.2 DESIGN FEATURES: Tate Grid+ LEC Structural Ceiling grid shall include the following features:

- A. 600mm x 1200mm OR 600mm x 600mm centred grid system with continuous threaded M10 slot.
- B. 3600mm Main Runners and 1200mm Structural Tees shall be notched on 600mm centres for easy system installation and positive positioning of 600mm and 1200mm Structural Tees.
- C. Connectors to include ribs to align system with grid on 1200mm or 600mm centre and prevent racking.
- D. System is capable of fitting most commonly supplied 600mm square +/- 3 mm size ceiling tiles, light fixtures and HVAC registers.

- E. 600mm and 1200mm Structural Tees shall be cut back for vertical support through flange grid contact to 300mm Main Runners.
- F. Accepts ceiling panels and light fixtures. Check fitment before procurement.
- G. Connectors include M10 threaded turnbuckle connections
- H. Connectors shall be constructed of powder coated black steel parts.
- I. 8-hole XL connector used at all intervals on a 1200mm x 600mm configuration. 4-hole field connector used on 600mm x 600mm intervals
- J. M8 Hex Head screw with serrated flange shall be utilized to secure connectors to Main Runners, Structural Tees, and Perimeter extrusions.
- K. System Weight (including tiles):
 - 600mm x 600mm = 11.5 kg/m²
 - 1200mm x 600mm = 9.2 kg/m²

2.3 STRUCTURE

- A. Tate Grid+ LEC Structural Ceiling grid shall be installed with a **Fixed** perimeter condition and on a **600mm x 1200mm** OR **600mm x 600mm** grid supported with spacing of **1200mm x 1200mm** connection to structure above.
- B. Main Runners, Structural Tees, and Perimeter extrusion shall be constructed of extruded aluminium and standard white finish.
- C. Connectors: Field XL, Field, and Perimeter connectors shall be constructed of powder coated steel with a corrosion resistant finish which is black in colour.
- D. Ceiling tiles to be 0.7mm galvanized steel sheet (0.8mm with paint), painted in RAL9016 white with 20% gloss to fit into Tate ceiling system.
- E. Ceiling system shall be capable of supporting a uniform load up to 3kN. (305 kg/m²)
- F. Ceiling system shall be capable of a maximum static point load of 2.2kN (224 kg/m²) with standard duty connector with a 2x safety factor.
- G. Turnbuckle connection to the building structure shall be capable of supporting 4.5kN (459kg). This value does not include a safety factor.

PART 3. EXECUTION

3.1 EXAMINATION

- A. Verify ceiling support rod anchors are properly installed in structure above.

3.2 STRUCTURAL CEILING INSTALLATION

- A. Tate Grid+ LEC Structural Ceiling grid shall be installed on a **600mm x 1200mm OR 600mm x 600mm** grid supported with spacing of **1200mm x 1200mm** connection to base building structure
- B. Support Spacing shall be defined by positioning of turnbuckle connections offset from one another starting from one corner of the interior structural grid assembly and spaced evenly throughout. Additional supports shall be provided as required along the perimeter and at any critical areas or as per seismic or code requirements or considerations.
- C. 3600mm Main Runners shall be installed on 1200mm centres and all main runners shall be parallel to one another. 1200mm Structural Tees shall be installed perpendicular to 3600mm Main runners. Finally, for 600mm x 600mm layouts, a 600mm Structural Tees shall be installed perpendicular to the 1200mm Structural Tees.
- D. All work shall be coordinated with all other trades including but not limited to electrical, mechanical, fire protection and furniture.

3.3 PERIMETER INSTALLATION

- A. Tate Grid+ LEC Structural Ceiling grid shall be installed with a Fixed perimeter condition.

3.4. CLEANING

- A. Inspect above and below installed ceiling system. Remove paint splatters and other spots, dirt, and debris. Touch-up scratches and mars of finish to match original finish.

END OF SECTION

Contact our technical team for support: T: (02) 9612 2300, E: info@tateapac.com

Tate Asia - Pacific Pty Ltd

Level 12, 100 George Street, Parramatta NSW 2150
tateglobal.com

Please note we reserve the right to change specification or design and supply products which may differ from those described and illustrated without notice and without liability. R 11/2025

Tate.