

## GT-GRID HEPA CEILING SYSTEM

### INTRODUCTION:

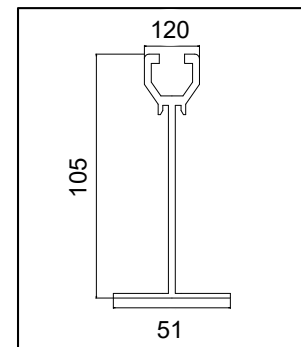
The cleanroom ceiling structure connected with the GT-Grid ceiling tee and the AL connector. The ceiling panels will be clamped down among the suspended profiles.

Filter boxes or HEPA module are built into the ceiling panel. For the standard sizes, no reinforcements from the top are necessary. The ceiling openings are covered with a special steel profile fitting the HEPA module.

### GT-Grid Ceiling System is design to meet your most demanding criteria as:

1. Cost effective & value engineering
2. Superior appearance
3. Fast, flexible and easy installation
4. Fast delivery and competitive cost
5. Non-combustible
6. Suitable for cleanroom 100 to 100K
7. For wall insulation purpose

Figure 1:  
GT Grid Ceiling Grid



**Ceiling Tee:** GT-Grid Ceiling Tee  
Material is AL Alloy (6065-T5)

**Panel Type:** 50mm thick  
Panel edge sealed by 0.8mm GI sheet made framework

**Applications:** Electronics and Pharmaceutical Cleanroom

**Facings:** 0.5mm PE Roll Coated steel skin, with or without Static Dissipative Surface Treatment  
Conductivity:  $R=10^6\Omega-10^9\Omega$   
Or 0.5mm PE Roll Coated, non-conductivity surface  
The surfaces are protected with a film foil (0.04mm) for the prevention of scratches during transport and installation damages.

**Color:** Grey White (Close to RAL 9016)

**Core:** Aluminium Honeycomb, Rockwool, Paper Honeycomb

**Adhesive:** Rebon YB2002 (resin) mixed with YB8001 (Hardener) Epoxy Paste Adhesive  
Mixing Ratio, YB2002:YB8001=4:1

**Panel Dimension:** Thickness of the panel is 50 mm  
Width of the panel is 1187 mmm

**Table 1: Honeycomb Aluminum Panel Specification**

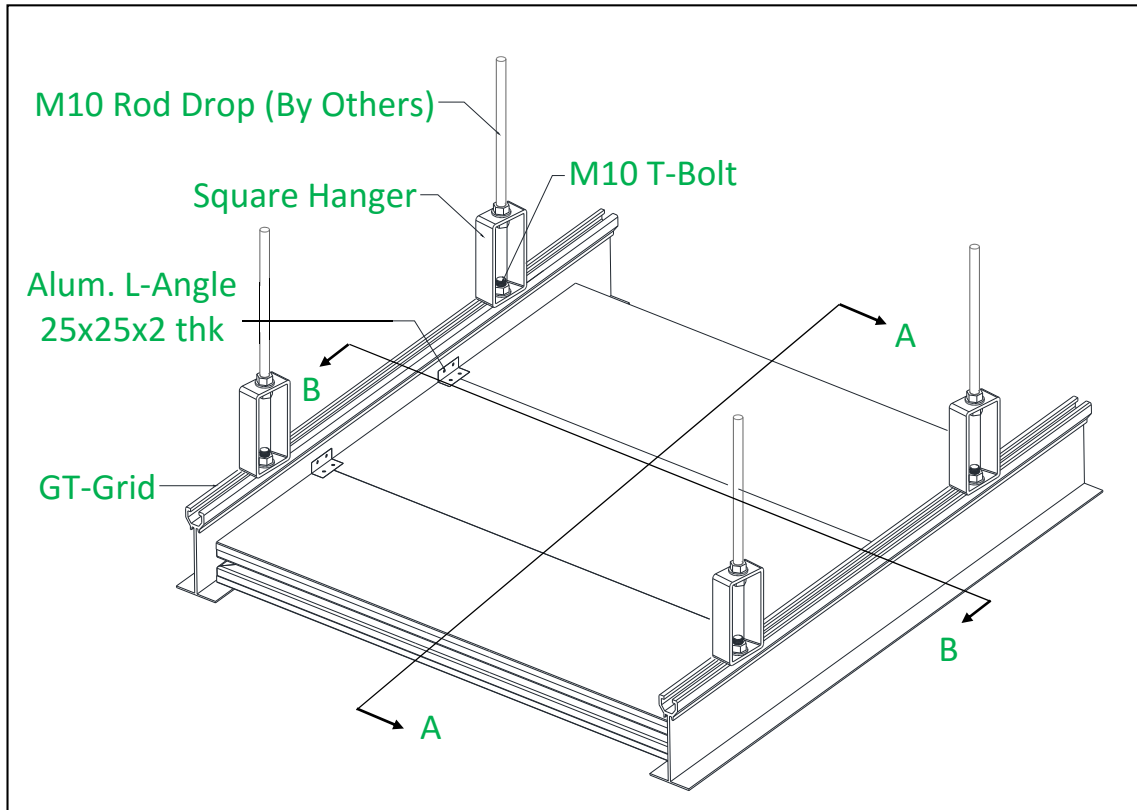
Description	Honeycomb Aluminum Panel
Non-Combustible	Class B1
Thermal Conductivity	<0.044 W/mk
Resists Temperatures	>100°C
Water Absorption	Moderate
Compression Resistance	>100kPa
Aluminum Core Thickness	0.06mm
Aluminum Honeycomb Diameter	D=17mm
Compressive Strength	>200 kPa
Flammable Gas Toxicity	Moderate

**Table 2: Rockwool Panel Specification**

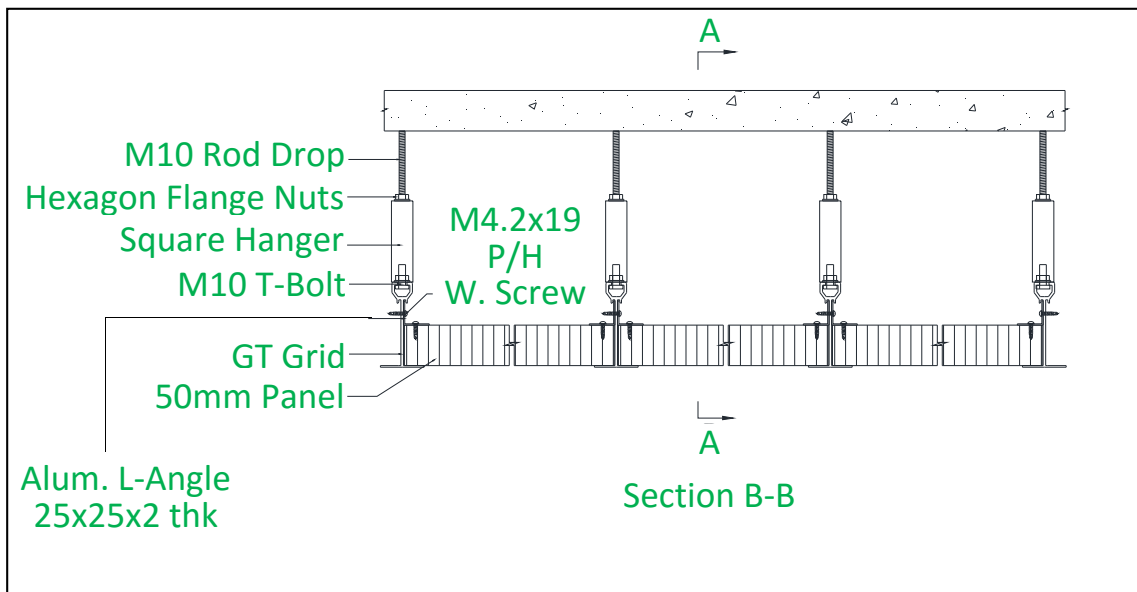
Description	Rockwool Panel
Fire Rating	>1 hour
Thermal Conductivity	<0.044 W/mk
Resists Temperatures	>1000°C
Water Absorption	Moderate
Compression Resistance	>40 Kpa
Noise Absorbing, at 125 Hz	0.07
Density, kg/m <sup>3</sup>	100 kg/m <sup>3</sup> ~120 kg/m <sup>3</sup>
Compressive Strength	150 kPa
Flammable Gas Toxicity	Moderate
Core Intenerate Temperature	>150°C

The horizontal joint between the panels will be connecting with aluminium special design GT-Grid ceiling tee and the vertical connected by AL connector (Refer to detail drawing).

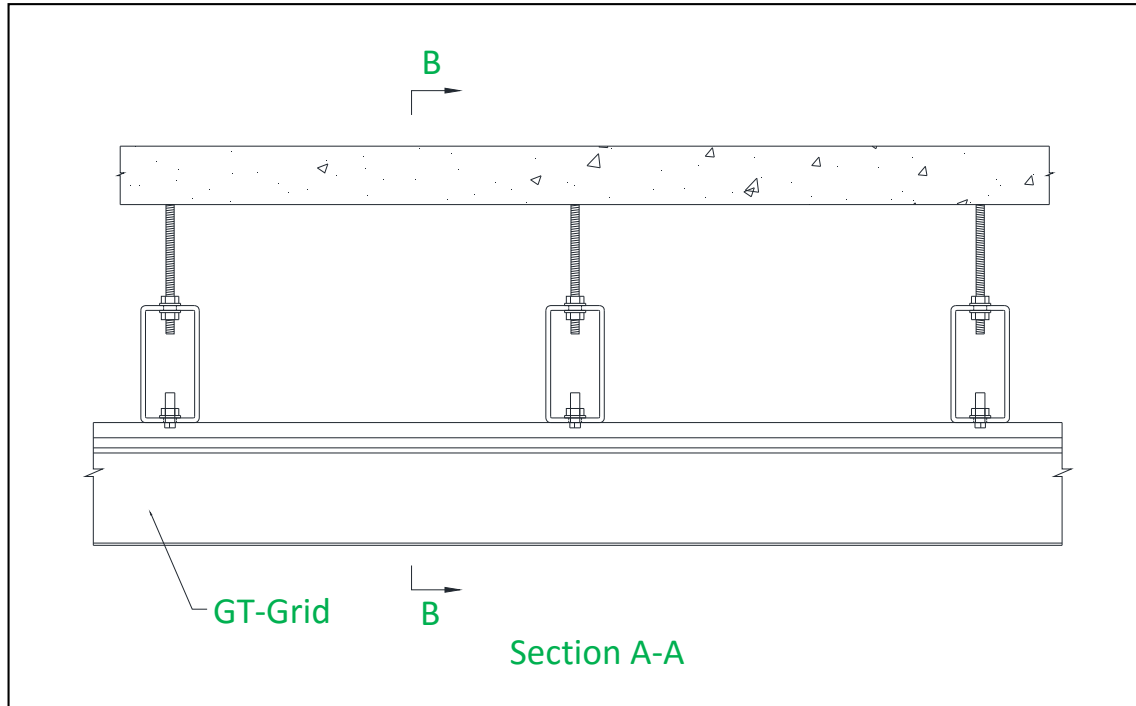
**Figure 2: GT-Grid Ceiling System Structure**



**Figure 3(a): GT-Grid System Cross Section Drawing**



**Figure 3(b): GT-Grid System Cross Section Drawing**



**Figure 4: GT-Grid System Simulation Appearance**

