



ACH Engineering Inc.



HPL Modular Wall and Ceiling System



The HPL partition wall is a structure with a thickness of 60/80 mm, made of 2 x 4 mm thick external HPL panels and internal insulation, which vary according to the project requirements.

Each panel made by ACH engineering Inc. is completely sealed on all 4 sides, using extruded aluminium profiles, designed to create the structure and complete closure of the internal insulation.

HPL panels are supplied different types of insulation: rock wool (RW), polyurethane foam (PUF), polyurethane (PUR).

In all cases, the densities of such insulations are extremely high, to guarantee superior mechanical stability of the wall itself.

Wall System Features

- Quick, Modular and Lightweight Construction
- Easy installation for a true modular cleanroom
- Pre-fabricated with factory made cut out for utility.
- Unique Intermediate Locking System to easily add or remove single panel.
- Demountable & easy to re-locatable the modules or components
- cGMP certified cleanroom design
- Full compatibility with chemicals used for cleanroom cleaning and sanitizing
- Better Flexibility, Durability, Aesthetic and Elegant appearance with the use of Aluminium Profile.
- Height – upto 10ft height but can go upto 30ft with joints
- Repair – 100% repairable in position
- Core material PUF, PUR, Rockwool
- Air Return – Integrated low-level return duct inside Panel (Riser)
- Life Span – 40 years and counting
- Color Choice as per Our Standard Shade Card

Ceiling System Features

- Pre-fab Pre cut walkable ceiling (Provision for Light, HEPA, LAF etc.)
- Aluminum Profile peripheral ceiling panel
- Single 3-5 mm joint between two panel
- Max size (Height – 118", Width – 45")
- Cable raceway on top with post caps
- Roof Suspended with unique Hanging Systems with adjustable 6" LH/RH turnbuckle
- Walk on ceiling panels are custom built as per Customer's Requirements for Load and Deflections
- Option available to design ceiling grid for better aesthetic view
- Standard ceiling panel load bearing 120 Kg/m² (30 lb/ft²)



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Panel Conformance

- Fire resistance/surface burning resistance capacity as per ASTM E84-17
- Fire resistance/surface burning resistance capacity as per UL 723
- Fire resistance/surface burning resistance capacity as per CAN CSUL102
- Design compliant with ISO 14644 / GMP / FDA
- GC MARK Certification for product quality accredited by UL-DQS Germany
- ISO 9001-2008 Quality System Certification



Technical Specification

Description	Specification	
Wall Panel thickness	60 mm (2-3/8") and 80mm (3-1/8")	
Maximum Available Standard Width	1200mm (48")	
Maximum Available Height without joint	3048mm (10'0")	
Panel Construction	Skin	high-pressure laminate (HPL) surface (4.0 mm thickness)
	Core	PUF/Bonded rock wool
	Joint	H Profile (Aluminium)
Weight of standard wall panel (approx.)	60 mm (2-3/8")	80 mm (3-1/8")
	2.2 Kg/ Ft ²	2.1 - 2.5 kg/Ft ²
Thermal Conductivity - K Value for PUF Insulation	0.14 Btu.in/ft2.hr. °F	
Thermal Conductivity - K Value for HPL4mm sheet	0.24 Btu.in/ft2.hr. °F	
Thermal Conductivity - R Value with PUF Insulation for 80 mm wall	3.8	

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