

# Material specification to LILAS project

## 1. Clean room panel

The panels are made out of pre-powder coated GI sheet. The powder coating on the sheet is polyester powder of standard specification 25 micron in thickness.

The thickness of panels is 50/75/100 mm as per the requirement of double skin.

The joint between two panels should not be more than 3mm and it should be uniform.

The gap between panels is filled neatly and flush with silicon sealant of approved or equivalent.

Provision for sockets/switches and pressure gauge is made within panels as per sample fitting and flush with the face of panel at proper height sleeves required for services to be cased within panels.

Chemical Resistance: Ethyl Alcohol, Solvents, Acid, Alkali and detergent.

Service Temperature Range: -45°C to +85°C.

The tensile stress 160~210 KPA & permissible compressive stress at 5% compression should be 12~15 KPA.

### 1.1 Partition wall panel

Type A: Total thickness: 50mm; MOC: 0.6mm PCGI + 5mm magnesium board+ Rock wool + 5mm magnesium board + 0.6mm PCGI; Notch + Alum. Joint. + Notch Type. Color: RAL9010.

Type B: Total thk.50mm; MOC: 0.6mm SS304 sheet + Rock wool + 0.6mm SS304 sheet; Notch + Notch type. Color: RAL9010.

PCGI: Pre-coated GI sheet, 0.6mm in thickness, face side 20  $\mu$  m PE coating + 5  $\mu$  m Epoxy coating; back side 5  $\mu$  m Epoxy coating

SS 304 sheet: MOC: Stainless Steel 304, 0.6mm in thickness, with wire-drawing finished surface.





### **1.1.1 Insulation material**

#### **Rock wool**

Density: 110~120 kg/m<sup>3</sup>

Thermal conductivity: 0.042W/(m • K)

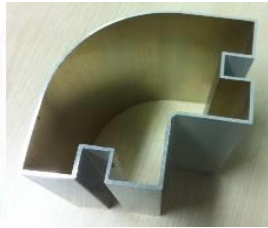
Temperature for shrinkage under hot load: 620 °C

Burning performance: not burn, Class M1

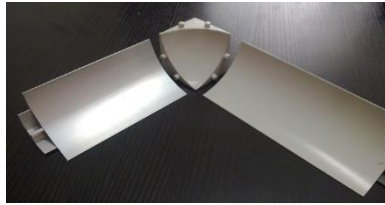
Fire resistance 60min (for 50mm wall thick)

### **1.1.2 Accessories for 50mm Partition wall**

Including all accessories and covings like: Aluminum Bottom track; 90 deg. corner curved anodized aluminum, Aluminum Coving with aluminum base for wall-wall, wall-floor, etc.



90 deg. corner curved anodized alum.



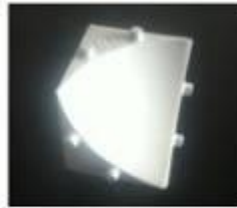
Alum. coving with PVC base



Alum. bottom track



Alum. Outside conner



Alum. Inside conner



Connection profile

## 1.2 Ceiling panel

Total thk.50mm; MOC: 0.6mm PCGI + 5mm magnesium board + Aluminum Honeycomb + 5mm+ 0.6mm PCGI; Notch + Alum. Joint. +Notch Type. Color: RAL9010



### 1.2.1 Insulation material

#### Alum. Honeycomb

Joint intensity: 11.6 N/cm Dia: 25 mm

Plan compression intensity: 1.69MPa

Plan compression modulus of elasticity: 81.7MPa

Burning performance: Not burn, CLASS M1

### Rock wool

Density: 110~120 kg/m<sup>3</sup>

Thermal conductivity: 0.042W/(m • K)

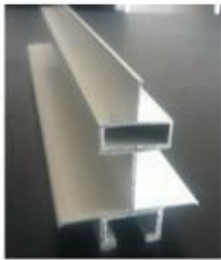
Temperature for shrinkage under hot load: 620 °C

Burning performance: not burn, Class M1

Fire resistance 60min (for 50mm wall thick)

### 1.2.2 Accessories for 50mm Ceiling panel

Including hanging material and covings like T-bar;  $\phi 10$  threaded rod; Alum. Coving with PVC base for wall-ceiling etc.



T-bar



$\phi 10$  threaded rod & Square model regulator



Alum. coving with PVC base

## 2. Powder coated door with Alum Frame

Single door (Cutout size: 900×2100×50mm) ; (Cutout size: 900×2100×50mm)

Double door (Cutout size: 1400×2100×50mm)

Door leaf: 0.9mm PCGI 60~80 $\mu$ m powder Coated GI Sheet/SS304 Sheet; Door frame: 2.5mm Aluminum alloy;

Aluminum hinges: Double glazing window for each door leafs if needed;

Flush type, suitable with partition wall panel;

Specialized Lock for clean room with air-stop at floor on the wings for each.

Option colors for door: blue, yellow, etc.



## 2.1 Hinge for PCGI & SS304 door

Material: SS304. 3mm in thickness.

Load Ability: 75KG

Applicable for: Timber Door & Folding Door

Door Thickness: 40-55mm



## 2.2 Lock

### SS bending lock



## 2.3 Air-stop

Automatic Bottom Door Seal (Concealed)

When the door is opened the seal will be automatically concealed; during the last travel of closing, the small plate will push the knob, and make the gap sealed.

The sealing gap: 5mm-15mm

Specification & Length: 25cm-150cm

Sealing material: Modified PVC, Flame-retardant composite material

Installation Method:


At the bottom of the door, a groove of 15mm (width)


\*31mm (height) must be mortised into the door bottom for embedding of the seal body. The fittings are installed regularly. (Screws and accessories included in pack.)


Special Note:

Longevity

Tested by the QC department, it reached 100,000 cycles of door opening and shutting before failure.



侧面图 Profile	品号 Item NO.	规格 Specification	可裁切至 can be cut to	适用门片规格 Specification applies to door-chip
	D11-25	33cm	25cm	25-33cm
	D11-66	66cm	33cm	33-66cm
	D11-85	85cm	66cm	66-85cm
	D11-100	100cm	66cm	66-100cm
	D11-120	120cm	100cm	100-120cm
	D11-150	150cm	-----	120-150cm



## 3. Double glazing window

Flush type, suitable to 50mm partition wall panel; Realized with two 5/6 mm safety glass; four side of glass are surrounded by black border, inside with anti-moisture desiccant, round corner.

### Square window



#### 4. Electronica air locks

Power supply: 220V, 50Hz

