Manufacturer Of
Modular Cleanroom
Panels With Eco PUF,
PIR & Rockwool





Lucky Deep Cleanroom Pvt. Ltd.

Total Cleanroom Turnkey Solutions...!
Think Green and Save Energy for a Better Tomorrow.....!

# **About Company**





25,000 Sq.Ft. Manufacturing Facility

> 72,000 Sq.Ft. land

60+ Cleanroom Projects

> HVAC Turnkey Projects

We Serve for Chemicals, Food & Beverages Hospitals

100+ Professionals Strength

16 years Existence

Lucky Deep Air Conditioning is a parent company of Lucky Deep Cleanroom Pvt. Ltd.

ISO Certified Company

We have done high quality projects in all over the world.



# Why Choose Us?



Here are key reasons to count on us to keep every cleanroom as per guidelines round the year.



100+ Projects Done 60+ HVAC Turnkey Projects

22 Years Of Experience 200+ HVAC & R Design

## **Core Values**







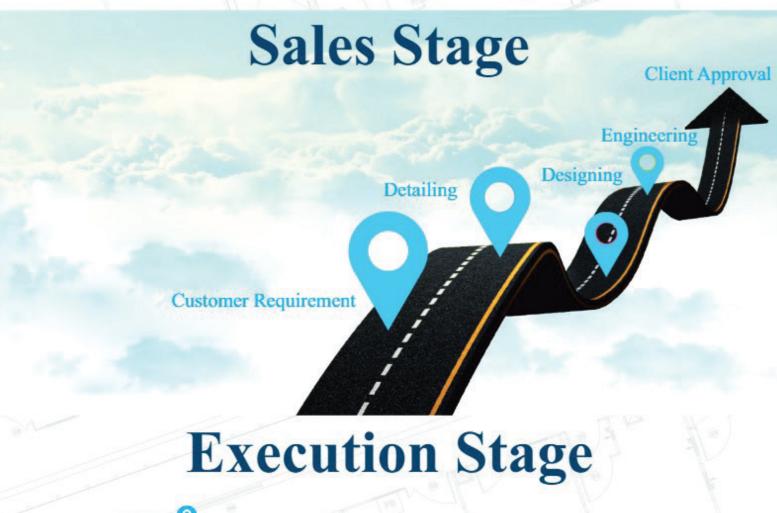
"We don't sell products, we sell concepts & solutions". Phrase from Lucky Deep's founder. The vision of Lucky Deep is to be a leading provider of high-quality products at an affordable and effective cost. The company aims to deliver solutions and concepts rather than merely selling products.



As an Indian-based group of companies specializing in cross contamination control in HVAC Cleanroom applications, the mission of Lucky Deep is to provide comprehensive solutions and services to ensure clean and controlled environments in various industries such as pharmaceuticals, biotechnology, healthcare, electronics, and other sensitive sectors.

# **Working Methodology**







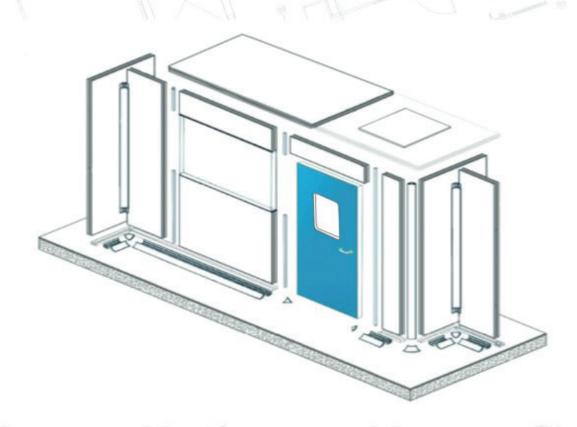
# **Industries We Serve**





# Progressive & Non-Progressive Panels





#### WALLPANELS

35/50/80/100 mm thickness with 1.0/0.8/0.6/0.5 mm thick sheet

#### **CEILING PANELS**

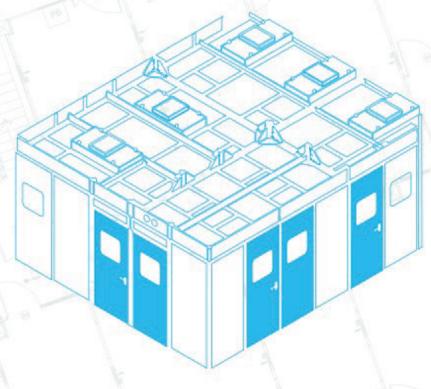
35/50/80/100 mm thickness with 1.0/0,8/0.6/0.5 mm thick sheet

#### MODULAR INBUILT RISER

80/100 mm thickness with 1.0/0.8/0.6/0.5 mm

#### **CURVE VIEW PANELS**

35/50/80/100 mm thickness with 1.0/0.8/0.6/0.5 mm



## **Wall Panels**



- Skin-PCGI, PPGI & SS (Can be any two combination)
- \* Structural framework-GI
- **▶** Thickness of Sheet -0.5, 0.6 & 0.8 mm
- Thickness of Powder Coating 60-80 microns,
- ▶ Thickness of Pre coating-30-35 microns
- Insulation PUF density 40±2 kg/m3, PIR density 48±2 kg/m3
- » ROCKWOOL density 96 kg/m3 & 144 kg/m3
- Sealant-Food grade silicon on both sides of the panels. Gap should not be more than 4 mm.
- Dimensions Width 1200 mm or as per room layout
- Height-As per Layout
- ▶ Panel thickness-35, 50, 80, 100 mm
- Support Powder coated Base runners with self supported panels with interconnecting profiles.
- Colour RAL 9002 std. colour & any other colour can be provided from the RAL chart.
- Panel type-Progressive & Non progressive.



# **Ceiling Panel**



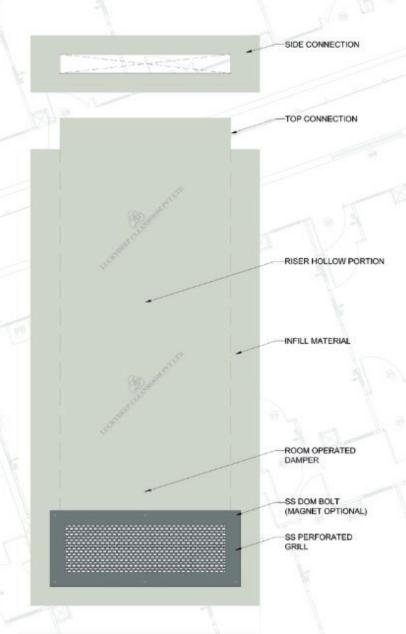
- \*\* Technical description Walk on / Non walk on ceiling panel made out of powder coating GI/Pre painted GI / stainless steel sheets on both side and inside filled with infill of specified thickness along with peripheral G.I. profile. panels will be in the form of planks of 1200 mm width and length as per the drawing
- Skin-PCGI / PCGI (GPSP), PPGI / PPGI & SS
- Structural framework GI & Thickness of Sheet -0.5, 0.6 & 0.8 mm
- ➤ Thickness of Powder Coating 60-80 micron, Thickness of Pre coating 30-35 microns
- Insulation PUF density 40±2 kg / m3, PIR density 48±2 kg/m3
- ▶ ROCKWOOL density 96 kg /m3 to 144 kg/m3
- Sealant Food grade silicon on both sides of the panels.
- "Gap should not be more than 4 mm.
- Dimensions-Width 1200 mm & Height as per layout
- Panel thickness 35 mm, 50 mm, 80 mm & 100 mm Thick
- ▶ Load carrying capacity-75 to 250 kg per sqm.
- >> Support-Wall panels and suspension rods.
- Colour-RAL 9002 std colour & any other colour can be provided from the RAL chart.
- Cutout provision for HVAC & Electrical-Cutout can be provided with C type flashing.
- Hanging arrangement Panel will be hang with suspension rod, with adjustable turnbuckle & will be anchor fastened in slab



## **Modular Insulated Risers**



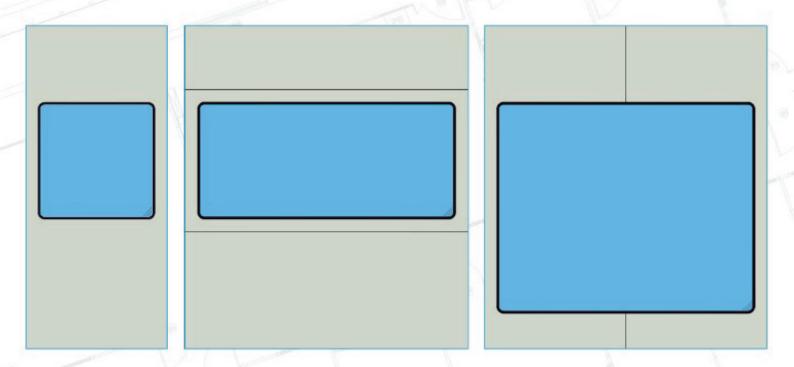
- → Technical description Flush riser duct panels with long projecting neck for connection
  with flange for HVAC duct connection. (With 10 micron filter) Inclusive of removable
  perforated grill fixed at 150 or 200 mm above Ceiling in riser panel with dome bolt
  arrangement (Sizes as per BOQ) & inbuilt dampers.
- » Skin-PPGI, PCGI & SS
- ▶ Structural frame work & Internal stiffeners - GI
- >> Thickness of Sheet-0.8 mm
- Thickness of powder coating 60-80 micron, Pre coating-30-35 microns
- Riser thickness 80 mm, 100 mm & 150 mm Thick
- > Extension on top-150 to 200 mm.
- \*\* Grills type & MOC -Capsule perforated with dome bolt / magnet/ wing bolt fixing & SS/Power coatings. Grill thickness - 1.2mm thick.
- Dampers-Extruded aluminium coated low leakage volume control damper & top operated arrangement.
- Pre-filters Box type filter of 10 microns(G4) 20mm thick,
   MOC-synthetic non woven media with Extruded aluminium frame, efficiency-as per EN779 down to 10 microns pressure drop across filter-4 mm Wg & allowable pressure drop 10 mm wg.



## **View Panels**

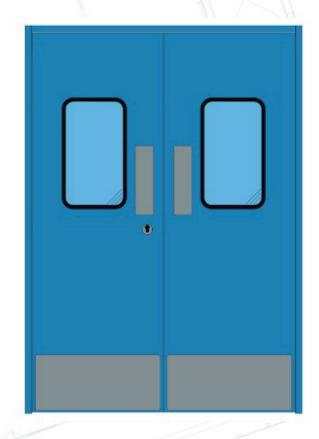


- Technical description Supply and Installation of double glass 6mm thick view panel flush from both side of wall fixed with both side adhesive tape over GI frame width to match wall thickness with silica gel desiccant arrangement and made air tight with sealant.
- ▶ Material of construction Extruded aluminium profiles & Powder coated GI.
- ▶ Dimension view panel glass size depends on the size of each view panels.
- ➡ Glass thickness & type Toughened & 6mm thick.
- ▶ Border-20 mm black border ceramic paint.
- > Tape-Both side adhesive or 3M tape.
- ▶ Silicone All four side will be filled with sealants to maintain uniformity.
- \* Desiccant material Silica gel provided inside the provide to absorb moisture.
- ▶ Type Single glass/both side glass, break open panels, civil windows & full glass panels.



# **Pharma Cleanroom Doors**







SINGLE LEAF DOORS

DOUBLE LEAF DOORS

FOUR LEAF DOORS

HATCH SINGLE LEAF DOORS

HATCH DOUBLE LEAF DOORS

EMERGENCY SINGLE LEAF DOORS

EMERGENCY DOUBLE LEAF DOORS

2 HOURS FIRE RATING DOORS



## **Cleanroom Doors**



- ▶ Description Double skin door with or without view panels, with the construction same as modular panels assembled with the door profile.
- Material of construction GPSP GI Sheet (0.8 mm thick) & Frame (1.2 mm thick) & for fire rating doors GPSP GI Sheet (1.2 mm thick) & Frame (1.6 mm thick).
- > Shutter-42/44/46 mm thick
- > Paint / Finish used Powder coated & Stainless steel.
- ▶ Thickness of Powder Coating-60-80 micron
- ▶ Sizes-Thickness- 50mm, 80mm, 100mm & 150mm Frame Thickness.
- Width 750, 900,1000,1200,1500,1800,2000,2200 mm
- ▶ Height 2100/2200 mm & customised sizes available.
- Door Accessories Stainless steel hinges 3-4 nos. per door, Stainless Steel 'D' type handles on the pull side of 20 mm dia. with 300 mm long, Stainless steel push plate on push plate on push side size 125 x 300 mm, Dorma make door closure std arm (TS - 68)
- both side key operated, locking arrangement, automatic door bottom seal at the bottom, view panel with 6 mm thick safety glass, panic bar for emergency door, flush tower bolt in double door, stainless steel kick plate of 300 mm height & door interlocking provision.
- Filler material-PUF 40±2 kg/m3 /PIR 48+2 kg/m3 /ROCKWOOL96±2 kg/m3.









## Rockwool



#### ROCKWOOL PANELS & DOORS WITH LAMELLA BATTS

#### **Applications**

TUFFINSUL Lamella is used for thermal and acoustic insulation where high compressive strength is required. It is commonly used in heavy loaded sandwich panels.

#### Performance

Working Temperature Product: Up to 750 °C

At temperatures in excess of 230 °C a limited migration of binder may occur in the insulation in contact with the hot face. This does not impair the insulation performance.

### Compression Strength of Lamella

Density ( kg / m <sup>2</sup> )	Thickness (mm)	Minimum compressive strength at 10% Deformation ( kPa)		
100	50	105		
140	50	115		
144	50	130		
144	100	142		

## Thermal Resistance (R value)

		Thermal Resistances at 25°C Mean temperature						
		M² k/w			Ft2.h.ºF/ Btu			
mm	inch	BR36	BR48	BR64	BR36	BR48	BR64	
40	1.50		2012	1.212			6.556	
50	2.00		1.429	1.515	\" <u>-</u>	8.230	8.741	
60	2.50	V-IE	1.714	1.818	3 -	10.288	10.926	
75	3.00	1.923	2.143	2.273	11.111	12.346	13.112	
100	4.00	2.564	2.857	3.030	14.815	16.461	17.482	

### Thermal Conductivity (K value)

Mean Temperature		Thermal Conductivity for the following densities						
		W/m.k	THE RESIDENCE OF THE PARTY OF T	State of the state of	Btu.in / ft².h.	F		
°C	°F	36 kg/64 kg/m³	48 kg/m³	64 kg/m <sup>3</sup>	2,250 lb/ft <sup>3</sup>	3.000 lb/ft <sup>3</sup>	4.000 lb/ft <sup>3</sup>	
10	50	0.036	0.033	0.031	0.250	0.229	0.215	
25	77	0.039	0.035	0.033	0.270	0.243	0.229	
50	122	0.047	0.042	0.038	0.326	0.291	0.263	
100	212	0.057	0.051	0.046	0.395	0.354	0.319	

## **Technical Data**



#### TECHNICAL DATA SHEET OF PUF PANELS

#### **Insulation - Properties**

S	K	U	R	Temperature
MM	K.cal / m <sup>2</sup> -h	W / m <sup>2</sup> - k	W / m <sup>2</sup> -k	Deg.
30	0.45	0.59	2.00	>10
40	0.40	0.51	2.20	>8
50	0.34	0.43	2.78	>8
60	0.29	0.36	2.94	>0
80	0.22	0.26	3.26	>-20
100	0.18	0.30	4.16	>-25

Lambda value: 0.22 W/mK

Compressive Strength: 0.1-0.3N/mm2 (IS-11239)

▶ Adhesion: 0.1- 0.5 N/mm2

₩ Water Absorption, Vapour Permeability & Dim- Stability: per IS-11239

Fire Rating: B-3-Din-4102/BS-4735 Self Ext.

Temp Range: -60 to 100°C

Density: 40 + 2 kgs/m3 Tensile

Strength: 4 kgs/cm2 (ISO-1926)

# **Gallery**





















www.luckydeep.com

## Clientele























































































## Lucky Deep Cleanroom Pvt. Ltd.

Total Cleanroom Solutions ....! Think Green and Save Energy for a Better Tomorrow .....!

> Save Earth. Save Life....!





Thanks & Regards

## Lucky Deep Cleanroom Pvt. Ltd.

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