



COLD ROOM



FRUITS & VEGETABLES



HORTICULTURE



ICE CREAM



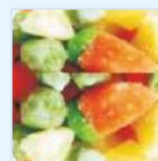
DRY FRUITS



HOSPITALITY



BAKERY PRODUCTS



FROZEN FOOD



PHARMACEUTICAL & CHEMICAL

COLD CHAIN SOLUTION



Source



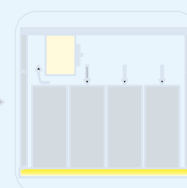
Pre Cooling



Mobile Pre Cooling



Grading & Sorting



Blast Chilling



Display Market



Market Distribution



Storage



Blast Freezing



Packing

TECHNICAL SPECIFICATIONS OF COLD ROOM

THICKNESS : 60, 80, 100, 125 & 150 mm

COLD ROOM

SURFACE MATERIAL : GI Pre-Painted Sheet, S.S. Sheet (Grade 304/316), GI Plain Sheet, Galvanium.
(Inside & Outside different metal can be placed as per your requirement)

- FLOOR :** (A) For Kota stone or Concrete floor, Puf Slab with both side tar felt coated.
(B) For Kota stone or Concrete floor, both side metal surface panel in which each side fits with cam lock and prevent temperature loss.
(C) Aluminium Chequered Plate with Marine Ply. (D) FRP Clading on floor

- DOOR :** (A) Flush Type Swing Door with FRP Profile, Imported Hardware, Push Type Gasket & replaceable heater for easy door operation & long life
Size 24"x66", 30"x72", 34"x78", 45"x84" (Door Opening WxH)
(B) Over Lap Type Teak wood frame with metal covering by using heavy duty hardware for better strength
Size 45"x84", 49"x84", 54"x84", 60"x90" (Door Opening WxH)

- ROOM SIZE :** (A) Length & Width Minimum 1.78 mt and Bigger size 0.146 mt in multiples. As per requirement
(B) Standard Height for 60 mm thickness 2.47 mt, 80 mm-2.51 mt, 100 mm-2.55 mt, 125 mm-2.60 mt, 150 mm-2.65 mt. Single Panel Height upto 12 mt and above as per your requirement.

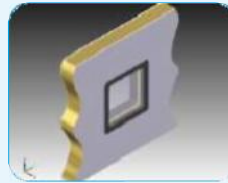
ACCESSORIES



Sliding Door:-
Width : 870/1200/1500/1800 mm
Height : 2100 to 3000 mm
Thickness: 80 mm
Material : Both side GIPP or S.S as per requirement



Hatch Door:-
Different size hatch door with heavy frame for easy material movement in high turnover ice cream and dairy industries.



View Port:-
12" X12" View port with three layer argon filled toughen glass which can be visible upto -20°C inside the cold room.



Pressure Ventilator:-
Tri-action pressure ventilator with/without heater to balance pressure and vacuum inside cold room.



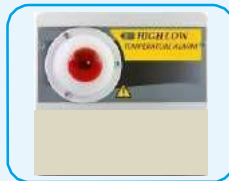
Strip Curtain:-
Semi transparent PVC strip curtain for negative temperature application to prevent heat loss and ultimately the power.



Wall Guard



Door Accessories



High Low Temperature Alarm

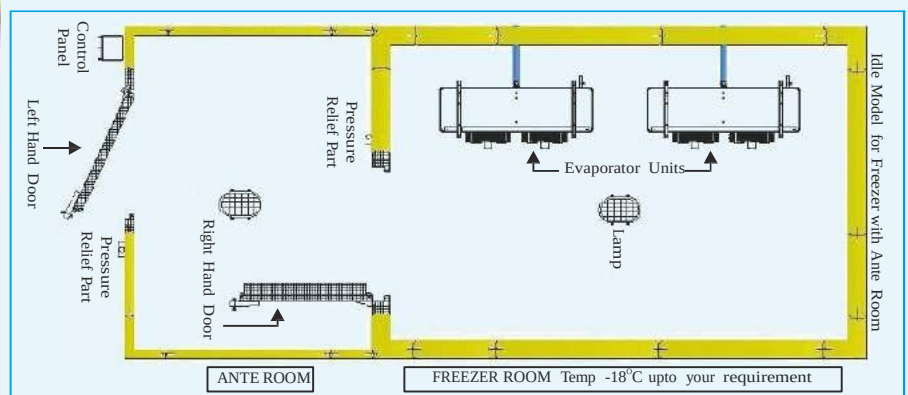
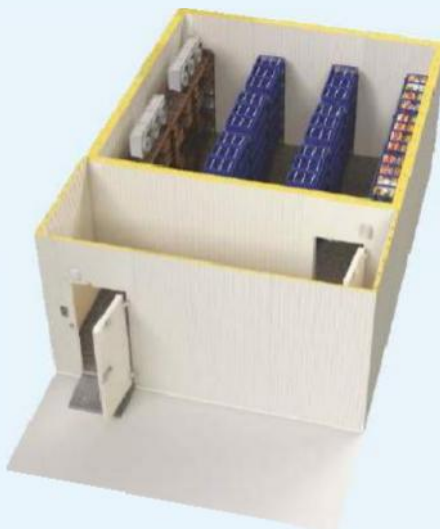


Inside Safety Alarm



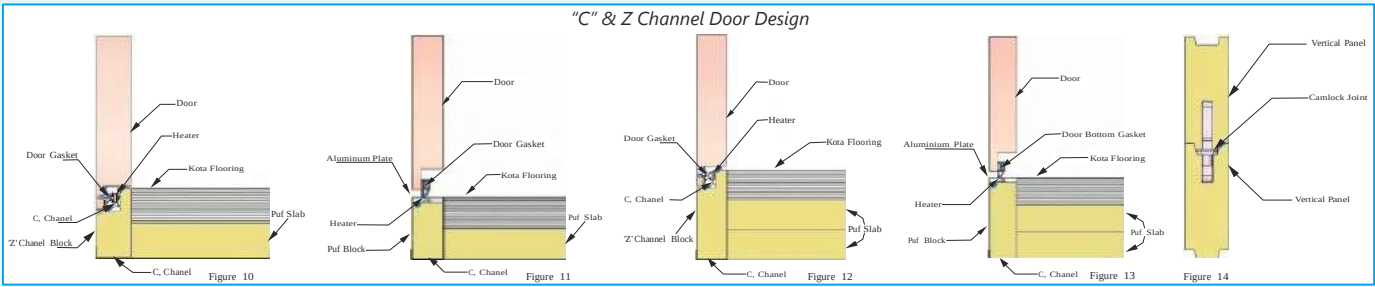
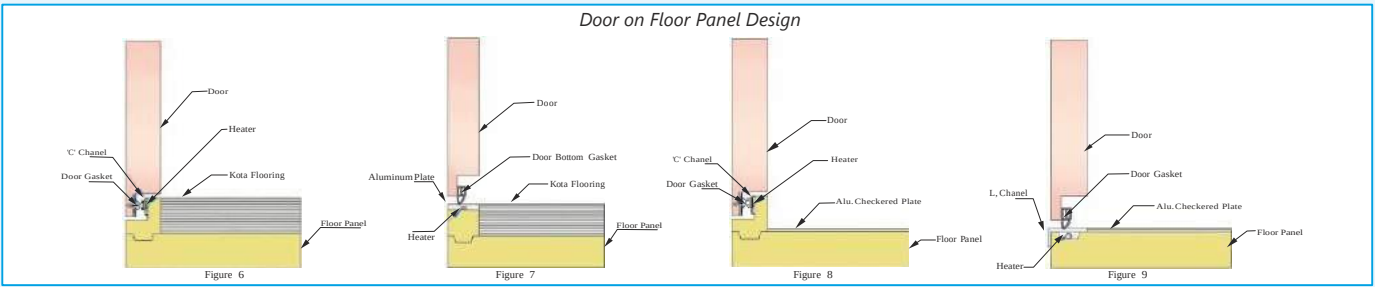
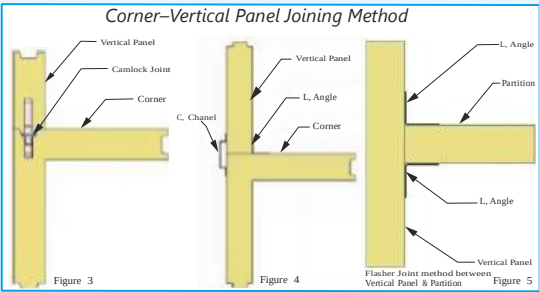
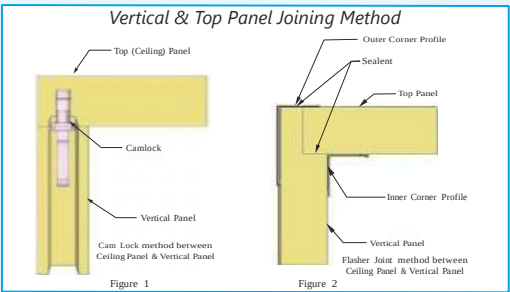
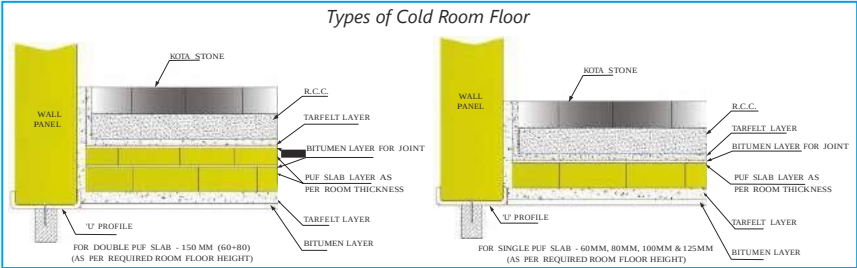
Ramp with Chequered Plate

3D / PLAN VIEW OF ICE CREAM COLD ROOM

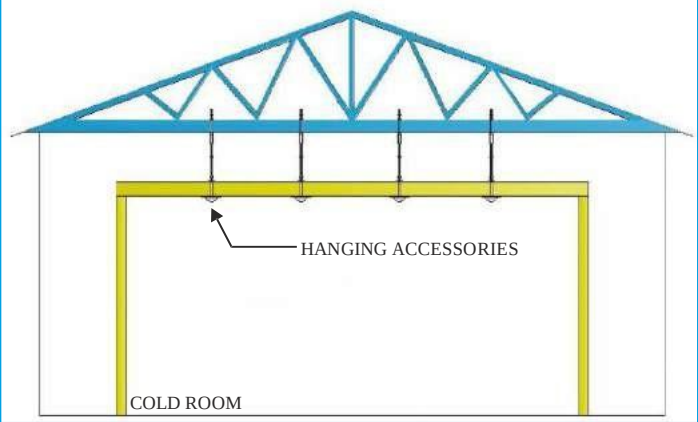


Note : For Positive temperature Ante Room is not Compulsory

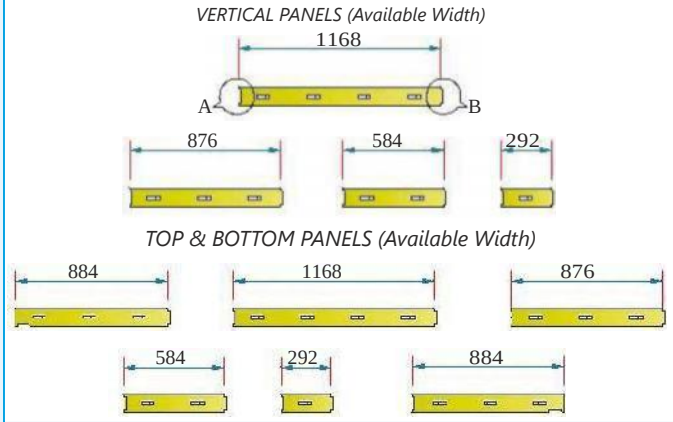
PANEL CONSTRUCTION CONFIGURATION



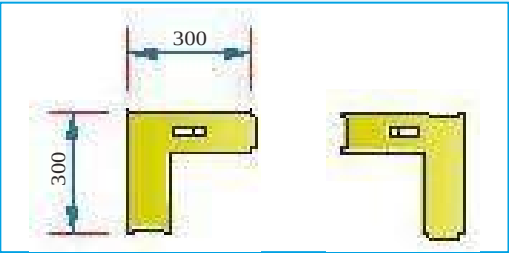
CEILING PANEL HANGING METHOD



PANEL WIDTH SIZE



CORNERS



PANEL JOINTS



AVAILABLE COLD ROOM SIZE

Standard Length & Width (with common thickness)

Inch	Feet	Meter	Inch	Feet	Meter	Inch	Feet	Meter	Inch	Feet	Meter	Inch	Feet	Meter
41.25"	3' - 5.25"	1.05	282.75"	23' - 6.75"	7.18	524.25"	43' - 8.25"	13.32	765.75"	63' - 9.75"	19.45	1007.25"	83' - 11.25"	25.58
47"	3' - 11"	1.19	288.5"	24' - 0.5"	7.33	530"	44' - 2"	13.46	771.5"	64' - 3.5"	19.6	1013"	84' - 5"	25.73
52.75"	4' - 4.75"	1.34	294.25"	24' - 6.25"	7.47	535.75"	44' - 7.75"	13.61	777.25"	64' - 9.25"	19.74	1018.75"	84' - 10.75"	25.88
58.5"	4' - 10.5"	1.49	300"	25'	7.62	541.5"	45' - 1.5"	13.75	783"	65' - 3"	19.89	1024.5"	85' - 4.5"	26.02
64.25"	5' - 4.25"	1.63	305.75"	25' - 5.75"	7.77	547.25"	45' - 7.25"	13.9	788.75"	65' - 8.75"	20.03	1030.25"	85' - 10.25"	26.17
70"	5' - 10"	1.78	311.5"	25' - 11.5"	7.91	553"	46' - 1"	14.05	794.5"	66' - 2.5"	20.18	1036"	86' - 4"	26.31
75.75"	6' - 3.75"	1.92	317.25"	26' - 5.25"	8.06	558.75"	46' - 6.75"	14.19	800.25"	66' - 8.25"	20.33	1041.75"	86' - 9.75"	26.46
81.5"	6' - 9.5"	2.07	323"	26' - 11"	8.2	564.5"	47' - 0.5"	14.34	806"	67' - 2"	20.47	1047.5"	87' - 3.5"	26.61
87.25"	7' - 3.25"	2.22	328.75"	27' - 4.75"	8.35	570.25"	47' - 6.25"	14.48	811.75"	67' - 7.75"	20.62	1053.25"	87' - 9.25"	26.75
93"	7' - 9"	2.36	334.5"	27' - 10.5"	8.5	576"	48'	14.63	817.5"	68' - 1.5"	20.76	1059"	88' - 3"	26.9
98.75"	8' - 2.75"	2.51	340.25"	28' - 4.25"	8.64	581.75"	48' - 5.75"	14.78	823.25"	68' - 7.25"	20.91	1064.75"	88' - 8.75"	27.04
104.5"	8' - 8.5"	2.65	346"	28' - 10"	8.79	587.5"	48' - 11.5"	14.92	829"	69' - 1"	21.06	1070.5"	89' - 2.5"	27.19
110.25"	9' - 2.25"	2.8	351.75"	29' - 3.75"	8.93	593.25"	49' - 5.25"	15.07	834.75"	69' - 6.75"	21.2	1076.25"	89' - 8.25"	27.34
116"	9' - 8"	2.95	357.5"	29' - 9.5"	9.08	599"	49' - 11"	15.21	840.5"	70' - 0.5"	21.35	1082"	90' - 2"	27.48
121.75"	10' - 1.75"	3.09	363.25"	30' - 3.25"	9.23	604.75"	50' - 4.75"	15.36	846.25"	70' - 6.25"	21.49	1087.75"	90' - 7.75"	27.63
127.5"	10' - 7.5"	3.24	369"	30' - 9"	9.37	610.5"	50' - 10.5"	15.51	852"	71'	21.64	1093.5"	91' - 1.5"	27.77
133.25"	11' - 1.25"	3.38	374.75"	31' - 2.75"	9.52	616.25"	51' - 4.25"	15.65	857.75"	71' - 5.75"	21.79	1099.25"	91' - 7.25"	27.92
139"	11' - 7"	3.53	380.5"	31' - 8.5"	9.66	622"	51' - 10"	15.8	863.5"	71' - 11.5"	21.93	1105"	92' - 1"	28.07
144.75"	12' - 0.75"	3.68	386.25"	32' - 2.25"	9.81	627.75"	52' - 3.75"	15.94	869.25"	72' - 5.25"	22.08	1110.75"	92' - 6.75"	28.21
150.5"	12' - 6.5"	3.82	392"	32' - 8"	9.96	633.5"	52' - 9.5"	16.09	875"	72' - 11"	22.22	1116.5"	93' - 0.5"	28.36
156.25"	13' - 0.25"	3.97	397.75"	33' - 1.75"	10.1	639.25"	53' - 3.25"	16.24	880.75"	73' - 4.75"	22.37	1122.25"	93' - 6.25"	28.51
162"	13' - 6"	4.11	403.5"	33' - 7.5"	10.25	645"	53' - 9"	16.38	886.5"	73' - 10.5"	22.52	1128"	94'	28.65
167.75"	13' - 11.75"	4.26	409.25"	34' - 1.25"	10.39	650.75"	54' - 2.75"	16.53	892.25"	74' - 4.25"	22.66	1133.75"	94' - 5.75"	28.8
173.5"	14' - 5.5"	4.41	415"	34' - 7"	10.54	656.5"	54' - 8.5"	16.68	898"	74' - 10"	22.81	1139.5"	94' - 11.5"	28.94
179.25"	14' - 11.25"	4.55	420.75"	35' - 0.75"	10.69	662.25"	55' - 2.25"	16.82	903.75"	75' - 3.75"	22.96	1145.25"	95' - 5.25"	29.09
185"	15' - 5"	4.7	426.5"	35' - 6.5"	10.83	668"	55' - 8"	16.97	909.5"	75' - 9.5"	23.1	1151"	95' - 11"	29.24
190.75"	15' - 10.75"	4.85	432.25"	36' - 0.25"	10.98	673.75"	56' - 1.75"	17.11	915.25"	76' - 3.25"	23.25	1156.75"	96' - 4.75"	29.38
196.5"	16' - 4.5"	4.99	438"	36' - 6"	11.13	679.5"	56' - 7.5"	17.26	921"	76' - 9"	23.39	1162.5"	96' - 10.5"	29.53
202.25"	16' - 10.25"	5.14	443.75"	36' - 11.75"	11.27	685.25"	57' - 1.25"	17.41	926.75"	77' - 2.75"	23.54	1168.25"	97' - 4.25"	29.67
208"	17' - 4"	5.28	449"	37' - 5.5"	11.42	691"	57' - 7"	17.55	932.5"	77' - 8.5"	23.69	1174"	97' - 10"	29.82
213.75"	17' - 9.75"	5.43	455.25"	37' - 11.25"	11.56	696.75"	58' - 0.75"	17.7	938.25"	78' - 2.25"	23.83	1179.75"	98' - 3.75"	29.97
219.5"	18' - 3.5"	5.58	461"	38' - 5"	11.71	702.5"	58' - 6.5"	17.84	944"	78' - 8"	23.98	1185.5"	98' - 9.5"	30.11
225.25"	18' - 9.25"	5.72	466.75"	38' - 10.75"	11.86	708.25"	59' - 0.25"	17.99	949.75"	79' - 1.75"	24.12	1191.25"	99' - 3.25"	30.26
231"	19' - 3"	5.87	472.5"	39' - 4.5"	12	714"	59' - 6"	18.14	955.5"	79' - 7.5"	24.27	1197"	99' - 9"	30.4
236.75"	19' - 8.75"	6.01	478.25"	39' - 10.25"	12.15	719.75"	59' - 11.75"	18.28	961.25"	80' - 1.25"	24.42	1202.75"	100'-2.75"	30.54
242.5"	20' - 2.5"	6.16	484"	40' - 4"	12.29	725.5"	60' - 5.5"	18.43	967"	80' - 7"	24.56	1208.50"	100'-8.5"	30.69
248.25"	20' - 8.25"	6.31	489.75"	40' - 9.75"	12.44	731.25"	60' - 11.25"	18.57	972.75"	81' - 0.75"	24.71	1214.25"	101'-2.25	30.84
254"	21' - 2"	6.45	495.5"	41' - 3.5"	12.59	737"	61' - 5"	18.72	978.5"	81' - 6.5"	24.85	1220"	101'-8.0"	30.98
259.75"	21' - 7.75"	6.6	501.25"	41' - 9.25"	12.73	742.75"	61' - 10.75"	18.87	984.25"	82' - 0.25"	25	1225.75"	102'-1.75"	31.13
265.5"	22' - 1.5"	6.74	507"	42' - 3"	12.88	748.5"	62' - 4.5"	19.01	990"	82' - 6"	25.15	1231.5"	102'-7.5"	31.28
271.25"	22' - 7.25"	6.89	512.75"	42' - 8.75"	13.02	754.25"	62' - 10.25"	19.16	995.75"	82' - 11.75"	25.29	1237.25"	103'-1.25"	31.42
277"	23' - 1"	7.04	518.5"	43' - 2.5"	13.17	760"	63' - 4"	19.3	1001.5"	83' - 5.5"	25.44	1243"	103'-7"	31.57

Standard Height (with common thickness)

Height	Thickness	60						Height	Thickness	80					
		Puf Slab			Alu. Chequered					Puf Slab			Alu. Chequered		
	Wall Panel	Inch	Feet	Meter	Inch	Feet	Meter		Wall Panel	Inch	Feet	Meter	Inch	Feet	Meter
St. Height-1	92.5	94.9	7'-10.9"	2.4101	97.2	8'-1.2"	2.47	St. Height-1	92.5	95.6	7'-11.6"	2.43	98.8	8'-2.8"	2.51
St. Height-2	112	114.4	9'-6.4"	2.91	116.7	9'-8.7"	2.96	St. Height-2	112	115.1	9'-7.1"	2.92	118.3	9'-10.3"	3
Maximum single panel	240	242.2	20'-2.4"	6.1576	244.7	20'-4.7"	6.22	Maximum single panel	240	243.1	20'-3.1"	6.18	246.3	20'-6.3"	6.26

Height	Thickness	100						Height	Thickness	125					
		Puf Slab			Alu. Chequered					Puf Slab			Alu. Chequered		
	Wall Panel	Inch	Feet	Meter	Inch	Feet	Meter		Wall Panel	Inch	Feet	Meter	Inch	Feet	Meter
St. Height-1	92.5	96.4	8'-0.4"	2.45	100.4	8'-4.4"	2.55	St. Height-1	92.5	97.4	8'-1.4"	2.48	102.3	8'-6.3"	2.60
St. Height-2	112	115.9	9'-7.9"	2.94	119.9	9'-11.9"	3.05	St. Height-2	112	116.9	9'-8.9"	2.97	121.8	10'-1.8"	3.09
Maximum single panel	240	243.9	20'-3.9"	6.20	247.9	20'-7.9"	6.30	Maximum single panel	240	244.9	20'-4.9"	6.22	249.8	20'-9.8"	6.35

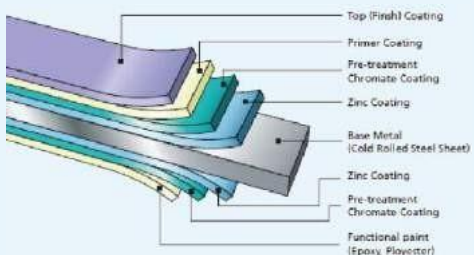
Height	Thickness	150					
		Puf Slab			Alu. Chequered		
	Wall Panel	Inch	Feet	Meter	Inch	Feet	Meter
St. Height-1	92.5	98.4	8'-2.4"	2.50	104.3	8'-8.3"	2.65
St. Height-2	112	117.9	9'-9.9"	2.99	123.8	10'-3.8"	3.14
Maximum single panel	240	245.9	20'-5.9"	6.25	251.8	20'-11.8"	6.40

COLD ROOM

Puf Thickness	Recommended Temp. Degree @ 32°C Ambient Temp.	Weight						Thermal Conductivity 'K' Value W/mK	Thermal Transmittance 'U' Value W/m²K	Thermal Resistance 'R' Value m²K/W	Thermal Transmittance 'U' Value K.Cal/m²K	Thermal Resistance 'R' Value m²K/K.Cal
		Wall & Ceiling		Floor Panel								
				Floor bare slab		Alu. Chequred Floor						
		Kg/Sq.ft	Kg/Sq.mtr	Kg/Sq.ft	Kg/Sq.mtr	Kg/Sq.ft	Kg/Sq.mtr					
60 mm	+20 to +2	1.5	16	0.25	3	2.5	27	0.022	0.3521	2.84	0.3018	3.31
80 mm	+2 to -8	1.6	17	0.35	4	2.6	28	0.022	0.2679	3.73	0.2296	4.36
100 mm	-8 to -18	1.7	18	0.425	5	2.7	29	0.022	0.2163	4.62	0.1854	5.39
125 mm	-18 to -27	1.85	20	0.525	6	2.85	31	0.022	0.1721	5.81	0.1475	6.78
150 mm	-27 to -50	2	22	0.65	7	3	32	0.022	0.1459	6.85	0.1251	7.99

	Thermal Transmittance 'U' Value									
	W/m²K					K.cal / m²K				
Panel Thickness	60	80	100	125	150	60	80	100	125	150
Temp. Difference °C										
1	0.3521	0.2679	0.2163	0.1721	0.1459	0.3018	0.2296	0.1854	0.1475	0.1251
10	3.5205	2.6797	2.1631	1.7556	1.4596	3.0174	2.2968	1.8540	1.5047	1.2510
15	5.2808	4.0196	3.2446	2.6335	2.1894	4.5262	3.4452	2.7810	2.2572	1.8766
20	7.0411	5.3595	4.3262	3.5113	2.9192	6.0349	4.5936	3.7080	3.0095	2.5021
25	8.8014	6.6993	5.4077	4.3891	3.6491	7.5437	5.7419	4.6350	3.7619	3.1276
30	10.5617	8.0391	6.4893	5.2670	4.3789	9.0524	6.8903	5.5620	4.5143	3.7531
35	12.3219	9.3790	7.5708	6.1447	5.1087	10.5611	8.0387	6.4890	5.2667	4.3786
40	14.0822	10.7189	8.6524	7.0226	5.8384	12.0699	9.1871	7.4159	6.0191	5.0041
45	15.8424	12.0587	9.7340	7.9004	6.5682	13.5786	10.3356	8.3430	6.7714	5.6296
50	17.6028	13.3986	10.8155	8.7782	7.2980	15.0873	11.4840	9.2699	7.5238	6.2551
55	19.3631	14.7385	11.8971	9.6561	8.0278	16.5961	12.6324	10.1970	8.2762	6.8806
60	21.1239	16.0784	12.9786	10.5339	8.7576	18.1053	13.7808	11.1239	9.0286	7.5062
65	22.8836	17.4182	14.0602	11.4117	9.4874	19.6135	14.9292	12.0510	9.7810	8.1317
70	24.6439	18.4382	15.1417	12.2896	10.2172	21.1223	15.8034	12.9779	10.5334	8.7572
80	28.1644	21.4377	17.3048	14.0452	11.6769	24.1397	18.3743	14.8320	12.0382	10.0082

TECHNICAL SPECIFICATIONS OF

Sr.No.	PARAMETERS	DESCRIPTION
1	Average PUF Density	40 $\pm$ 2 Kg/ cu.mtr/ m ³
2	PUF Blowing Agent	141B (CFC free)
3	Insulation Material	Polyurethane foam
4	Temperature range	+90°C to -60°C
5	Penal Type	Discontinuous type with camlock
6	M.O.C. Of Cam locks	Cam locks body material HIPS and male latch is made of nylon Glass field with GI sheet reinforcement. Cam-lock panel joints easy assembly and leakage resistant, panel-to-panel joints.
7	Type of Panel joints	Tongue & Groove Joint with Cam lock and all side rubber gaskets
8	Corner Panel Available	12" x 12" x 134" (maximum Length)
9	Length of Wall & ceiling Panel	2032 mm to 6160 mm 80" to 242.5" inch
10	Ceiling Suspension items with specs	MS bolt with thermal breaking cap. 4 mm thickness X 80 x 80 mm Aluminium/MS washer plate for load distribution Anchor bolt (MS) hanging bolt with 40 mm washer 2.0 mm thickness Sealing to panel MS road Clamp with an insulated crown.
11	Closed cell content	90 to 95%
12	Vapour Permeability	5.5mg/PASM
13	Water Absorption	Less than 2%
14	Fire Grade of Polyurethane Panel	FR Grade B2 (Fire Resistant Grade)
15	Compressive Strength at 10% Deformation	0.21 N/ sq.mm (For PUF only)
16	Tensile Strength	0.58 N/sq.mm (For PUF only)
17	Adhesive Strength (Foam to Sheet)	2.9 kg /sq.mtr
18	Dimension Stability	Less than 2%
19	Panel Facing Availability	With Rib or plain on Demand (Ribs are provided for more strength)
20	Wall & Ceiling Panel facing Material	• Pre Painted Galvanised sheet , Thickness 0.50mm • Plain Galvanised sheet , Thickness 0.50mm • S.S. Sheet, Grade 316, 0.50mm, finish 2B, mate • S.S. Sheet, Grade 304, 0.50mm, finish 2B, mate
21	Floor Panel Facing Material	• Puf Panel with both side tarfelt sheet. • Puf Panel with both side 0.5mm GIPP sheet. • Puf Panel with outside GIPP sheet, inside 9 mm thick marine ply with 2 mm thick Aluminium Chequered Plate
22	Specification for Colour Coating	 A. RAL No. : 9002/9003 or it's nearest B. Indian Standard code Colour Coating : IS 14246 Galvanizing : IS 277 Base Metal : IS 513 C. Organic Coating : Type RMP (Polyester) D. Zinc Coating : 120 GSM E. Top Primer (Thickness in micron 'μ'): 5 +/- 1 μ F. Top Coat (Thickness in micron 'μ'): 20 +/- 1 μ G. Back Primer (Thickness in micron 'μ'): 4 +/- 1 μ H. Back Coat (Thickness in micron 'μ'): 4 +/- 1 μ I. Guard Film (Thickness in micron 'μ'): 40 +/- 3 μ J. Salt Spray Test /Humidity Test : 750 hrs. /1000 hrs.

AQUA INTERNATIONAL

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