

# INSULATION FOR CHILLERS



AIR COOLED SCREW CHILLER



WATER COOLED CENTRIFUGAL CHILLER



ABSORPTION CHILLER



WATER COOLED SCREW CHILLER

- High quality Insulation for water cooled chillers
- NBR with black glass cloth lamination
- Evaporator shell and refrigeration piping
- Air cooled chillers
- EPDM with black glass cloth lamination

India, being a warm tropical country, most of the refrigeration and HVAC applications involve cooling of air, water, other fluids or products. Heating is used only for a very small period in water in the northern parts of the country and in places at high altitudes. Refrigeration and air-conditioning accounts for a significant portion of the energy consumption in many manufacturing industries (like chemicals, pharmaceuticals, dairy, food etc), agricultural & horticultural sectors (mainly cold stores) and commercial building (like hotels, hospitals, offices, airports, theatres, auditoriam, multiplexes, data processing centers, telecom switching exchanges etc).

Some commonly used applications are process colling by chilled water or brine, ice plants, cold stores, freeze drying, air-conditioning systems etc.

Specifications

Technical Performance

Density	50 Kg/M <sup>3</sup> ± 15%(Sheet), 60 Kg/M <sup>3</sup> ± 15%(Tube)
Temperature Range *	-40°C to + 115 °C
Thermal Conductivity W/m.K EN 12667 (DIN 52612) EN ISO 8497 (DIN 52613) IS 3346 : 1980	-20 °C ≤ 0.031 W (m.k) 0 °C ≤ 0.033 W (m.k) 40 °C ≤ 0.037 W (m.k)
Water vapour diffusion Resistance factor μ	≥ 7,000
Corrosion Risk	pH 7 (neutral)
Toxicology	Low Carbon Monoxide Formation meets IMO RES.MSC 61 (67)
Ecological Data	No asbestos, No HCFC - CFC, No Formaldehyde - Cd-Hg etc.
Resistance to Fungi	No growth observed ASTM : G 21
Closed Cell	> 90%
Ozone resistance	Very Good
Resistance to Oil and Grease	Very Good
Odour	Negligible
Noise reduction	upto 35dB (A)
Reaction to Fire BS 476 Part 6 & 7 UL 94	Class 0 VO FM Approved

\* For temperature below -40°C pls consult our engineering group

Benefits

- Excellent insulation properties due to low k-value, that remain unchanged during service life time of hot/cold installation and are unaffected by humidity.
- The closed-cell structure will not absorb or allow the spread of water, thus preventing condensation or frost formation on cooling systems, chilled water & refrigerant lines. No additional water vapour barriers are required.
- Supplied with reinforced aluminium foil for increased performance and quicker installation. Adhesive backing is also available.
- Wide working temperature (-40°C to +115°C).
- Thinner gauges can be used to achieve effective insulation due to low k-value and high water vapour diffusion resistance (μ). This also allows the use of material in areas with space limitations.

Aerocell-T

Packaging details for Tubes

Size- ID		6mmThk		9mmThk		13mmThk		19mmThk		25mmThk		32mmThk	
mm.	inch.	Pcs./ Crtn	Mtr./ Crtn	Pcs./ Crtn	Mtr./ Crtn	Pcs./ Crtn	Mtr./ Crtn	Pcs./ Crtn	Mtr./ Crtn	Pcs./ Crtn	Mtr./ Crtn	Pcs./ Crtn	Mtr./ Crtn
6	1/4	250	500	170	274.50	110	201.30	48	87.84				
10	3/8	200	400	120	219.60	90	164.70	36	65.88	15	27.45	15	27.45
13	1/2	150	300	100	183.00	72	131.76	30	54.90	25	45.75	25	45.75
16	5/8	120	240	90	164.70	63	115.29	30	54.90	25	45.75	25	45.75
19	3/4	100	200	72	131.76	56	102.48	25	45.75	20	36.60	20	45.75
22	7/8	90	180	60	109.80	42	76.86	24	43.92	18	32.94	18	45.75
25	1	80	160	50	91.50	42	76.86	20	36.60	16	29.28	16	36.60
28	1 1/8	75	150	50	91.50	36	65.88	20	36.60	16	29.28	16	36.60
32	1 1/4			42	76.86	30	54.90	20	36.60	15	27.45	15	36.60
35	1 3/8			36	65.88	30	54.90	16	29.28	12	21.96	12	32.94
42	1 5/8			30	54.90	25	45.75	16	29.28	12	21.96	12	32.94
48	1 7/8			28	51.24	20	36.60	15	27.45	10	18.30	10	32.94
51	2			24	43.92	20	36.60	12	21.96	9	16.47	9	27.45
54	2 1/8			20	36.60	18	32.94	12	21.96	9	16.47	9	27.45
60	2 3/8			20	36.60	15	27.45	10	18.30	9	16.47	9	27.45
67	2 5/8			18	32.94	13	23.79	9	16.47	8	14.64	8	27.45
73	2 7/8			18	32.94	13	23.79	9	16.47	8	14.64	8	18.30
76	3			18	32.94	12	21.96	8	14.64	8	14.64	8	18.30
79	3 1/8			15	27.45	12	21.96	8	14.64	6	10.98	6	18.30
89	3 1/2			15	27.45	12	21.96	6	10.98	6	10.98	6	14.64
102	4							5	9.15	5	9.15	5	14.64
108	4 1/4							5	9.15	5	9.15	5	9.15
114	4 1/2												

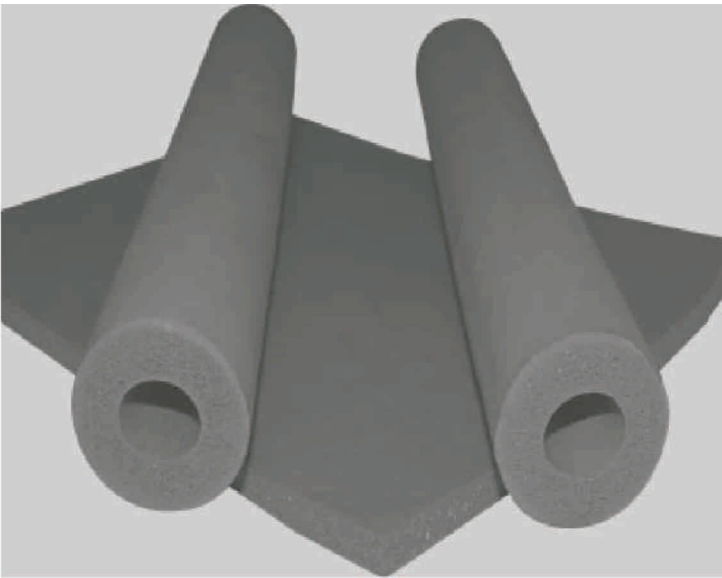
Tube length : 2 Mtrs. (Special Sizes available on request)  
Tolerance - ID from 6mm to 42 mm tolerance of + 2mm/-0mm, and above 42mm + 3mm/-0.  
For thickness from 6mm to 19mm ± 1mm and for 25mm & 32mm ± 2mm.

Aerocell-S

Packaging details for Sheet Rolls

Sheet Thickness (mm)	Dimensions	Roll Content sq. mtr.	Sheet Thickness (mm)	Dimensions	Roll Content sq. mtr.
3*	1m x 100m	100	16	1m x 20m	20
6	1m x 40m	40	19	1m x 15m	15
9	1m x 30m	30	25	1m x 10m	10
13	1m x 25m	25	32	1m x 8m	8

\* 3mm sheet is available with one side skin only  
Tolerance - Width 1000mm ± 20mm. Sheet thickness from 6mm to 19mm ± 1mm and for 25mm & 32mm ± 2mm.



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**Disclaimer:** Although these values represent actual results achieved in tests, they should only be used as a guide. ALP Aeroflex cannot guarantee the performance of the product as all situations are different & should be treated separately. All statements & technical informations are based on results obtained under typical conditions. It is the responsibility of the recipient to verify with us that the informations are appropriate for specific use intended by the recipient.