

FILCEL CELLULOSE PADS - TECHNICAL DATA SHEET

GENERAL SPECIFICATIONS:

Filcel® is a honeycomb style, high efficiency fabricated cellulose media. It can be used for evaporative cooling, adiabatic and filtering purposes, in both residential and commercial use.

The cooling pad consists of resin impregnated corrugated cellulose paper sheets with flute angles at 45° to the pad face. These sheets are bonded together with a permanent glue, which with the resin provides a strong matrix that supports the pad during operation and storage.

While providing support and strength, the resin allows high water absorbance into the paper in order to fully utilise the evaporation surface.

Both the resin, glue and paper matrix are resistant to decomposition, rotting and effects of salt build-up during operation.

Pads are supplied as per Original Equipment Manufacturer (OEM) specifications with a water distribution panel (header) or channel set as required. Alternatively pads can be custom made to suit your requirements.

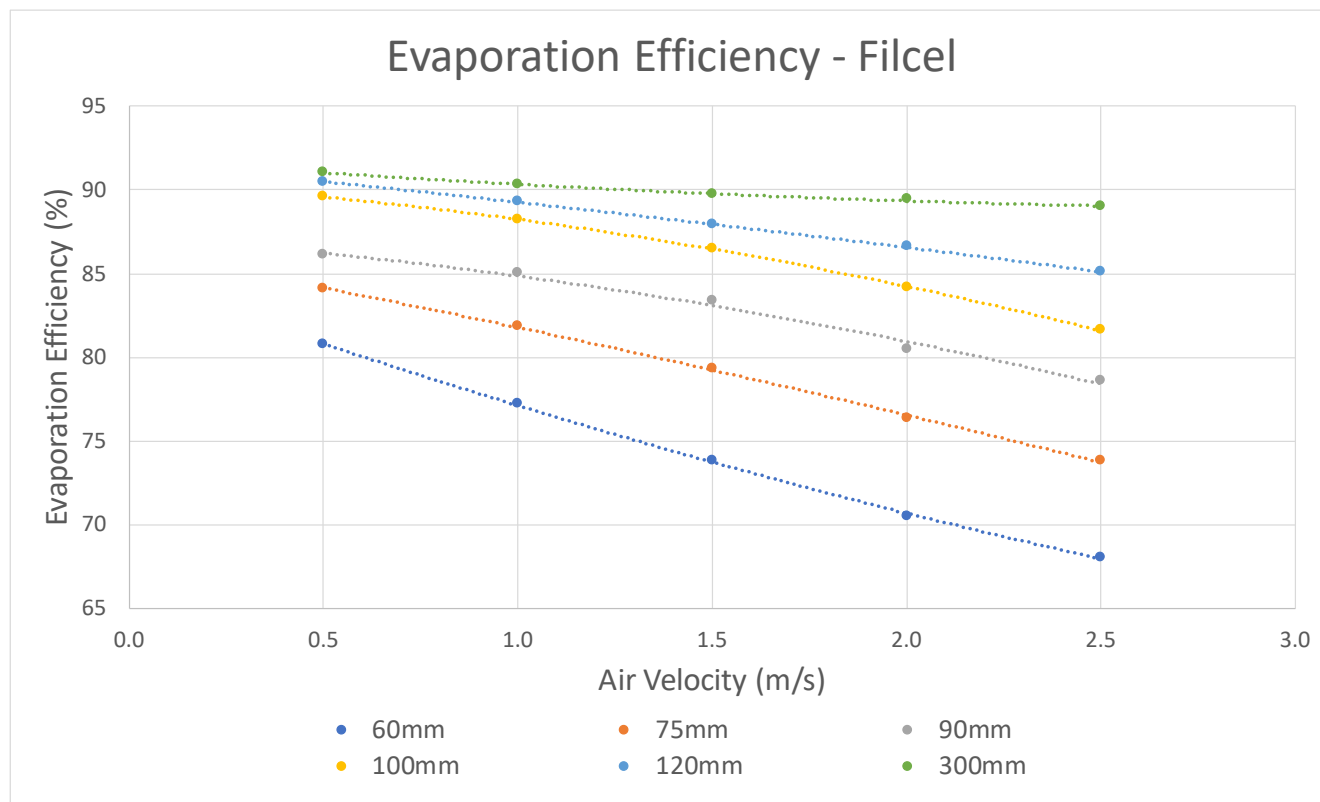
PROPERTIES:

ITEM	UNIT	VALUE
DENSITY	kg/m ³	41
SHEET THICKNESS	mm	0.15
EVAPORATION SURFACE AREA (BOTH FACES)	m ² /m ³	500 - 550
FLUTE HEIGHT	mm	5.0
FLUTE ANGLE		45° x 45°
OPERATING CONDITIONS		
TEMPERATURE	°C	5 - 80
HUMIDITY	%RH	0 - 100

PAD THICKNESS	AIR VELOCITY	EVAPORATION EFFICIENCY (%) *	PRESSURE DROP DRY (Pa)	PRESSURE DROP WET (Pa)
60mm	0.5	80.8	1.5	1.9
	1.0	77.2	8.4	10.7
	1.5	73.8	20.0	25.9
	2.0	70.5	35.8	44.8
	2.5	68.0	55.3	70.9
75mm	0.5	84.1	1.8	2.4
	1.0	81.9	9.6	11.8
	1.5	79.3	22.5	27.4
	2.0	76.4	40.3	48.8
	2.5	73.8	62.1	76.8
90mm	0.5	86.1	2.2	2.5
	1.0	85.0	10.6	12.4
	1.5	83.3	25.1	28.9
	2.0	80.5	44.8	51.7
	2.5	78.6	69.3	80.6

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PAD THICKNESS	AIR VELOCITY	EVAPORATION EFFICIENCY (%) *	PRESSURE DROP DRY (Pa)	PRESSURE DROP WET (Pa)
100mm	0.5	89.6	2.3	2.7
	1.0	88.2	11.3	13.3
	1.5	86.5	27.0	30.7
	2.0	84.2	48.1	55.1
	2.5	81.6	74.7	82.3
120mm	0.5	90.5	2.6	3.2
	1.0	89.3	12.7	15.6
	1.5	87.9	30.3	35.8
	2.0	86.6	54.0	64.4
	2.5	85.1	83.8	100.0
300mm	0.5	91.1	5.3	5.3
	1.0	90.3	19.8	20.9
	1.5	89.7	47.1	50.8
	2.0	89.5	84.5	89.7
	2.5	89.0	132.1	141.0



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