



Synth Pad

Synth Synth Pad (Synthetic Pad)

Is a Humidifying pad obtained by the assembly of thermoformed self extinguishing PVC, with a surface coating made with cellulose fibers commonly known as rayon. Its patented design allows to recover the efficiency that wouldn't be possible with a non permeable material: the inlet section, with its wide honeycomb, minimize the pressure drop; the vertical flute, with its unique spiral groove, is made to ensure that the water reaches uniformly the bottom of the panel; the crossed flutes with a variable angle structure, that include vertical interruptions to allow the fall of water from a channel to the other, increases the retention time and the contact surface, avoiding water stagnation; the exit is characterized by a rectilinear flute, slightly inclined, that works as water recuperator and reduce the air pressure drop due to a sudden expansion.

Working Principle:

The working principle is very simple and it is a natural process. Water is fed by a pump from the panel top and is suitably spread by a distribution system, that can be improved thanks to our *Synth Pad distributor*, which uniformly wets the entire surface. The air which pass through the panel is then cooled and humidified,

Applications:

The humidifying *Synth Pad* is used in many applications where the maximum efficiencies of air cooling and humidification are required, keeping down the air pressure drop, and is also chosen by Engineers due to its peculiar characteristics such as being **self-extinguishing**, **unputrefying** and for its size stability in time.

The principal systems where it is used are:

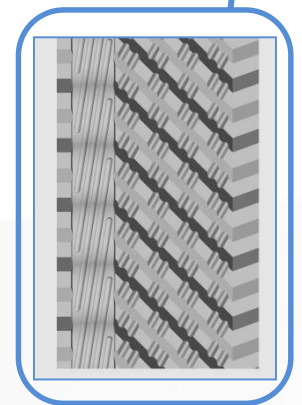
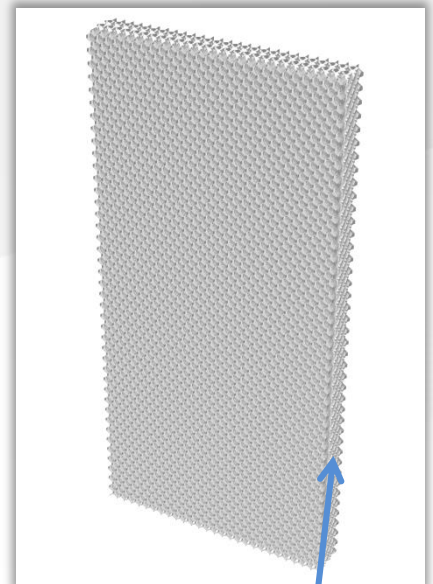
- ❖ Civil and Industrial Air Handling Units;
- ❖ Evaporative Condenser – Chiller – Cooler
- ❖ Humidifying Sections
- ❖ Adiabatic Coolers

Principal Advantages:

- ❖ High Efficiency
- ❖ Low Air Pressure Drop
- ❖ Self-Bearing
- ❖ Low Exercise Costs
- ❖ Fast Installation
- ❖ Long Useful Duration
- ❖ self-extinguishing (PVC is certified ASTM E-84)

We Recommend:

- ❖ Humidification Section Periodic Control
- ❖ Foresee intermediate water distribution systems for section taller than 2 m
- ❖ Periodic Control on water hardness



Humidifying Panels



Technical Data

Standard Pad Sizes:

Height (mm)	1200	1500	1800
Width (mm)	600 – for relevant quantities available made to size		
Depth (mm)	100	150	200

Pieces per Box

100 mm DeepPads	10 pcs
150 mm DeepPads	6 pcs
200 mm Deep Pads	5 pcs

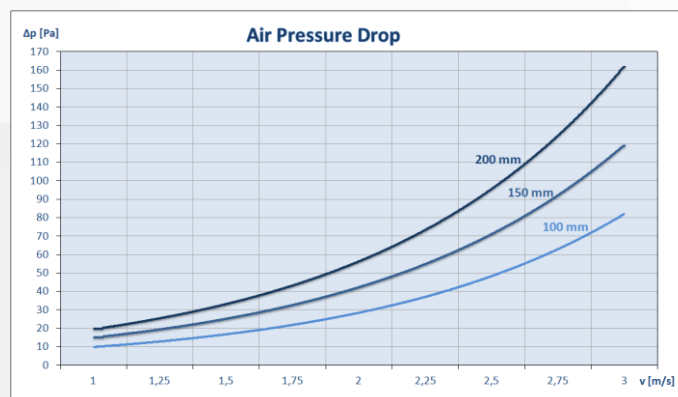
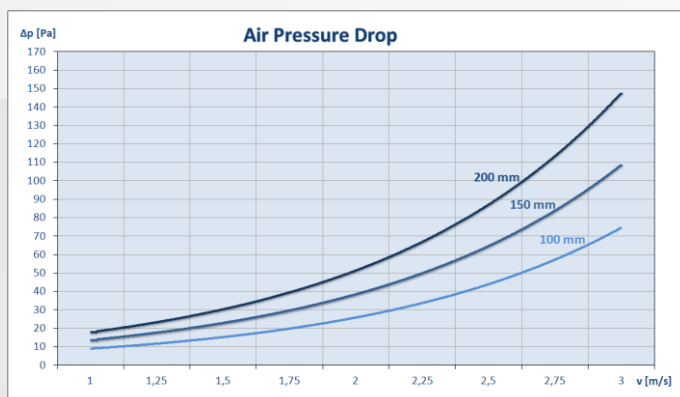
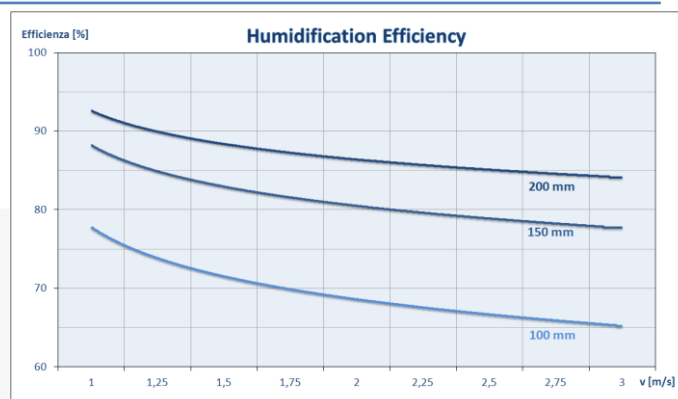
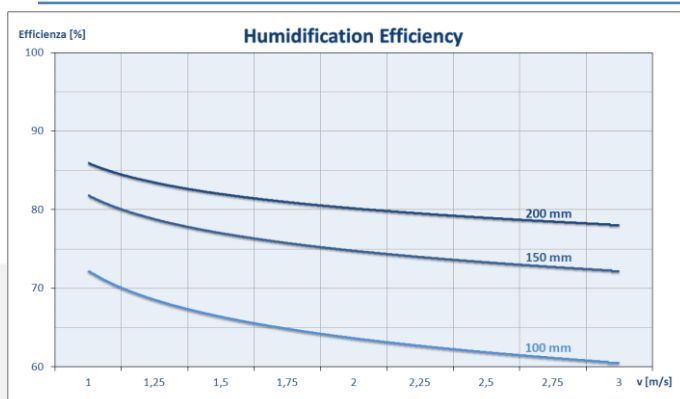
Synth Pad in PVC

Synth Pad PVC + Rayon

Material	Regenerated PVC	Virgin PVC With Rayon fibers' coating
Color	black	white
Reference Standards	Standard Test Method for Surface Burning Characteristics of Building Materials ASTM E-84	ASTM E-84 (...) Burning Characteristics TM197-TM 197 Vertical Wicking test NES M0152 flock adhesive scrape test
Working temperature	-5 °C / + 60 °C	-5 °C / + 60 °C

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