



# VertiClean Film Fill

*A result of EvapTech's constant Research & Development efforts and our commitment to Leading the Industry, the latest generation of **VertiClean**® fills provide superior thermal performance in a non-fouling fill. Wide vertical flutes and uniquely textured sheets combine for maximum heat transfer without retaining the solids that reduce thermal performance and reduce pack life.*

## VertiClean Features:

- **Thermal Performance** – Unique combination of low pressure drop and high wetted surface area mean superior thermal performance, often exceeding that of cross-corrugated fills.
- **Fouling Resistance** – Vertically formed PVC flutes are unobstructed, while delivering excellent thermal performance.
- **Low Pressure Drop** – Thermoformed vertical flutes are designed for low air pressure drop, and less parasitic fan power loss.
- **Durability** – PVC material is UV stabilized and impervious to chemicals and biological agents found in cooling towers.
- **Colder Water** – Textured PVC sheets improve evaporative heat transfer. VertiClean produces colder water than any splash bar or trickle type fill.
- **CTI Standard Compliance** – Complies with Cooling Technology Institute (CTI) Standard 136. Sheet thickness complies with industry standard sheet thickness after forming.
- **Low Flame Spread** – VertiClean PVC material is self extinguishing and is rated 20 flame spread or less per ASTM E84.



## VertiClean Benefits:

- **Less Fouling** – For plants with dirty water, VertiClean fill delivers excellent thermal performance with much lower risk of fouling than any other film fill. VertiClean is designed for high TSS and biofouling potential.
- **Maintenance Access** – Strong fill packs are suitable for supporting workers which makes maintenance and repair of the water spray system easier.
- **Colder Water** – Convert splash bar or deck type fill to VertiClean film fill for significant thermal performance increase. Reduce cost of parasitic power consumption.
- **Fire Safety** – VertiClean PVC film fill packs reduce the risk of fire propagation.

VertiClean film fill is available in thicknesses up to 20mil after forming

**Superior performance.  
Tested! Proven!**

## EvapTech, Inc.

*A wholly owned subsidiary of Evapco, Inc.*

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**EvapTech VertiClean** is a non-fouling film fill with fully vertical flutes, to prevent fouling but with a unique texture and high wetted surface area for maximum heat transfer. The sheets are manufactured from rigid PVC and meet CTI Standard 136. Solvent bonding produces modules that can withstand severe installation handling as well as operational and maintenance situations. VertiClean is resistant to UV.

### Suggested Specification

Fill shall be fully vertically fluted (not offset), non-fouling cellular film fill, thermoformed of PVC materials providing \_\_\_ mil minimum sheet thicknesses after forming as defined by CTI standard STD-136. The fill design shall be selected for the thermal design conditions and appropriate considering the fouling potential of the circulating water quality. For air travels exceeding 4', a second layer of fill may be added. Fill shall be supported on centers as required to accommodate operational loads and the specified live load. The fill modules shall be solvent welded at dedicated contact points for superior module strength.

### Pack Specifications

Material	Rigid PVC
Nominal Sheet Thickness	10, 15 or 20 mils AF
Module Depth, Inches (All Widths)	12", 24" or 48" ( +/- 1/4")
Module Width, Inches (12 sheets)	12.0" (+/-1/2")
Maximum Module Length, Inches	120" (+/-1/2")
Surface Area ft <sup>2</sup> /ft <sup>3</sup>	41.9
Flute Height, Inches	1.505" (+/-0.0625")
Flute Width, Inches	2.1" (+/- 0.0625")

Physical Property	ASTM Test	Units	Value
Density	D772	g/cm <sup>3</sup>	1.39 - 1.45
Tensile Strength (yield)	D882	lb/in <sup>2</sup>	6,000 min
Flexural Strength	D790	lb/in <sup>2</sup>	>11,000
Flexural Modulus	D790	lb/in <sup>2</sup>	>525,000
Stiffness in Flexure	D747	lb/in <sup>2</sup>	525,000 min
Gardner Impact Strength	D4226	in lb/ mil	1.0 min
Tensile Impact Strength	D1822	ft lb/in <sup>2</sup>	255 min
Heat Deflection	D648	Deg F.	255 min
Flammability	D635	Self extinguishing Less than 5 seconds	
Flame Spread Rate	E84	Less than 20	

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