CF 1900 Cross Corrugated PVC Fill

PRODUCT SPECIFICATION

The media is to be manufactured by Brentwood Industries, or equal and will meet the following specifications:

1. Scope:
   ACCU-PAC CF-1900 (Cross-Fluted) high-density film media designed for cooling of power plant, petrochemical, HVAC and other process cooling waters.

2. Material of Construction:
   A. General
   The media shall be fabricated from rigid, corrugated PVC sheets that are conducive to cooling water and UV protected. The media modules shall be resistant to rot, fungi, bacteria and inorganic/organic acids and alkalies as commonly found in cooling towers.

   B. PVC SHEETS
   The PVC sheet shall be prime, rigid PVC conforming to commercial standard ASTM D1784:12454B with the following properties:

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
Specific Gravity	D792	gm./cu.cm.	1.45 max.
Tensile Strength	D638/D882	psi	6,000 min.
Flexural Modulus	D790	psi	425,000 min.
Flexural Strength	D790	psi	11,000 min.
Elastic Modulus	D638/D882	psi	360,000 min.
IZOD Impact	D256	ft.lbs./in.	1.0 min.
Impact Resistance	D4226	in. lbs./mil	0.8 min.
Heat Deflection	D648	°F(264 psi)	160 min. - PVC 175 min. - HPVC
Flame Spread Rating	E-84		less than 5
Flammability	D635		self extinguishing less than 5 sec.

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C. Chemical

Resistance to Grease Fats, Oils	Excellent	ASTM D722-45
Resistance to Acids	Excellent	ASTM D543
Resistance to Alkalies	Excellent	ASTM D543

The PVC sheets shall be of uniform thickness and free from holes, air bubbles, foreign matter, undispersed raw material or other manufacturing defects which may adversely affect their performance.

D. Media Modules

The media modules shall be fabricated from PVC sheets of quality stated above and completely corrugated at an angle of 60 degrees from the horizontal to form a cross-corrugated pattern between adjacent sheets providing a continuous and horizontal redistribution of air and water. The flute height for each corrugation shall be 0.75 inches.

The media modules shall be 100% cross-flow and ensure adequate contact and diffusion between liquid and air by providing a minimum of 720 mixing or redistribution points per cubic foot of module. 'Random media' or media with horizontal corrugations will not be acceptable.

The media shall measure up to 24 inches wide, 12" or 24" high and up to 10' long and provide a minimum surface area of 48 sq. ft./cu.ft. with a minimum of 95% void-to-volume ratio.

The self-supporting media modules shall be made from corrugated sheets of above configuration and have a specific number of glue points formed on each corrugated sheet. These corrugated sheets shall be bonded together to give a cross-corrugated pattern by application of glue only to these "dedicated glue joints" to provide a finite number of contact points and to form strong and homogenous media modules. Media modules shall have edge bonding. Media modules made from random application of glue over the corrugated sheets or with 'double fold' shall not be acceptable.

Each module shall have a minimum bearing capacity of 500 lbs./sq.ft. Modules in the top layer shall have a minimum bearing capacity of 1000 lbs./sq.ft. In addition, media modules shall be capable of withstanding a minimum loading of 100 lbs./sq.ft. per foot of media height above the module as placed in the tower. Media modules on the bottom layer shall meet the designed load bearing capacity when placed on the support beams.

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3. Installation:

The media shall be installed as per the recommendation of the media manufacturer and in accordance with the engineer's specification, which shall include the following:

A. The media modules shall be carefully cut or trimmed to fit within 1/4 inch (or less) of any obstruction or sidewall to prevent air bypass.

B. The media shall be conveyed to the top of the tower by mechanical conveyor or crane. Cranes shall be used or conveyors shall be constructed as necessary to transport the media to the working level inside the tower, and the media modules shall be moved by hand for final placement.

C. The shaping, cutting and trimming of the media modules may be done in the tower provided that precaution is taken by the Contractor to prevent any chips, broken pieces, or debris from falling into the media by using canvas tarpaulins or similar working materials to cover the media modules. All media modules shall be cleared of any such fallen material before a new layer of media is added. The top layer of media should also be completely protected from damage and such falling material due to any subsequent work until the "start up" of the system.

D. The media module edges should be protected from damage due to workmen walking on them. To prevent such damage, the Contractor shall use plywood, pegboard or other suitable temporary planking.

E. The media modules shall be placed in the tower to provide the closest possible fit with adjacent modules without damaging the modules. The module packing arrangement shall be as recommended by the cooling tower manufacturer and shown on the installation drawings. Media modules within each layer shall be installed such that the sheets of all modules are parallel to each other. Modules in respective layers shall be installed at right angles to the layer immediately below and above.

F. The media modules in the bottom layer shall be centered over the media support system.

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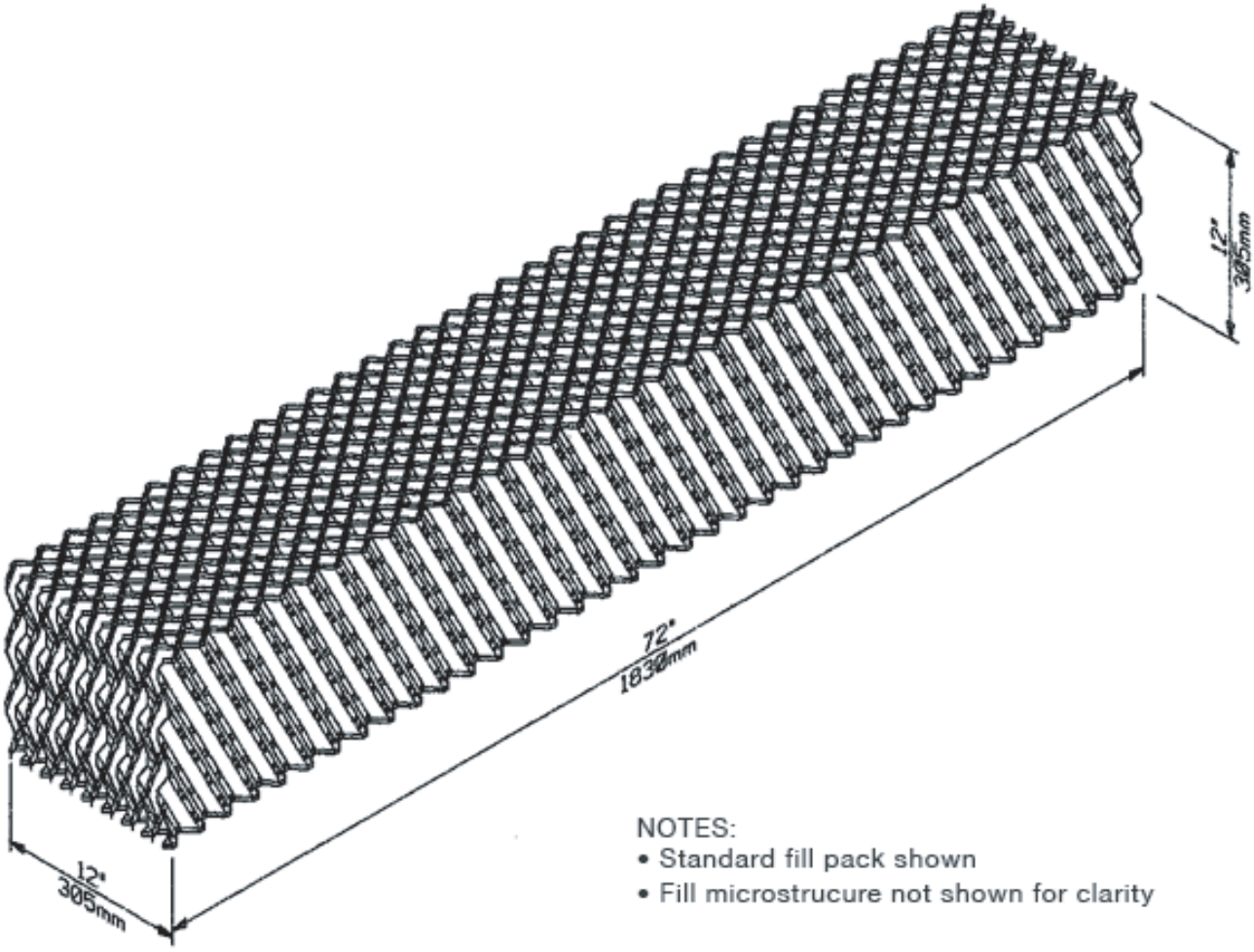
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SURFACE AREA	SHEET SPACING	FLUTE ANGLE	SHEETS PER FT.	MEDIA PACK SIZES: Depth (D), Width (W), Length (L)		
				Minimum	Maximum	Standard
48 ft2/ft3 (157.5 m2/m3)	19 mm	30°	16	D: 4 in (100 mm) W: 6 in (153 mm) L: 1 ft (305 mm)	D: 24 in (610 mm) W: 24 in (610 mm) L: 12 ft (3660 mm)	D: 12 in (305 mm) or 24 in (610 mm) W: 12 in (305 mm) or 24 in (610 mm) L: 4 ft (1220 mm), 6 ft (1829 mm), 8 ft (2439 mm) or 10 ft (3048 mm)



NOTES:
- Standard fill pack shown
- Fill microstrucure not shown for clarity

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