

PERMATRON®

FOAM MEDIA

Filter foam is a reticulated flexible polyester urethane foam. Unlike ordinary urethane foam, it has a three-dimensional structure of skeletal strands which gives it unique filtering properties. It is exceptionally porous and permeable; therefore it is ideal for many filtration applications where other foams cannot be used.

The homogeneous structure of reticulated foam helps minimize the possibility of open channels which could drastically affect filter efficiency. Each cell in the medium is completely interconnected with all surrounding cells. ***This allows for free passage of air and at the same time provides high surface-area contact for impingement of dust particles.*** The resilience and strength of the foam helps prevent strand displacement under normal operating conditions.



Benefits

- ❖ Relatively low air resistance & low pressure drop due to the open-pore skeletal structure
- ❖ Large dust-holding capacity due to the 97% void volume
- ❖ Design potential for easy installation
- ❖ Space savings due to high tensile strength & tear resistance
- ❖ Made In The USA

<u>Foam Media Functions</u>	<u>Applications</u>
Filtering	air filters for engines on lawn mowers, motorcycles, automobiles and trucks; air conditioners, furnaces, appliances, cold drink dispensers, paint spray booths, computers
De-misting	liquid filters for environmental use and fuels
Evaporative Media	humidifiers and evaporative coolers
Coalescing	oil spill cleanup

Typical Physical Properties

Porosity	20 ppi
Color	Charcoal
Thickness	.25, .50
Density	1.9 lb/ft ³
Tensile Strength	25 psi
Ultimate Elongation	320%
Tear Strength	5.5 lb/in
50% Compression set	7
Compression Deflection	25% - .42% 64% - .67%
Flammability	MVSS302 Flame Tests Flame Retardant
UL Classification	UL 900 Air Filter Unit As To Flammability Only

Temperature

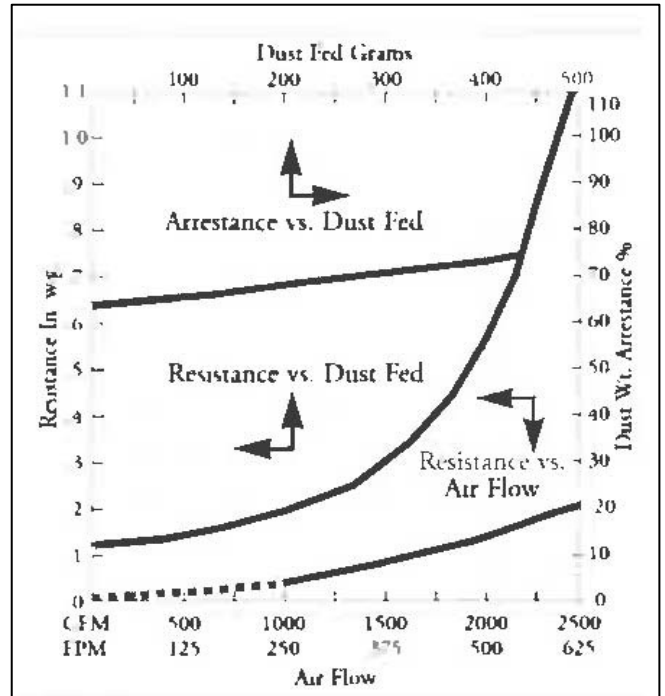
Foam media can withstand intermittent temperatures as high as 225°F (121°C). At temperatures above 500°F (260°C), foam begins to melt with decomposition and vaporization. At -40°F (-40°C), it shows no evidence of cracking or tearing when bent around a mandrel equal in diameter to the foam thickness.

Chemical Properties

Foams are not adversely affected by water, soap, and most detergents, perspiration, oils, and most cleaning solvents, or greases at normal temperatures.

ASHRAE STD.52-76

Air Filter Performance Report



Test Number: 1525

Medium: 20 ppi Z

Test Size: 1/2" x 24" x 24" (4 ft.²)

Air Velocity: 500 fpm (2000 cfm)

Average Arrestance: 69%

Dust Holding Capacity: 330 gm

20 ppi Pressure Drop

