

NFM

National Filter Media

NFM's Micro-Maxx™ Felt

Micro-denier capped needle felt for use
in ultra-stringent emission
requirements via surface filtration
qualities.

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Micro-denier vs Macro-denier

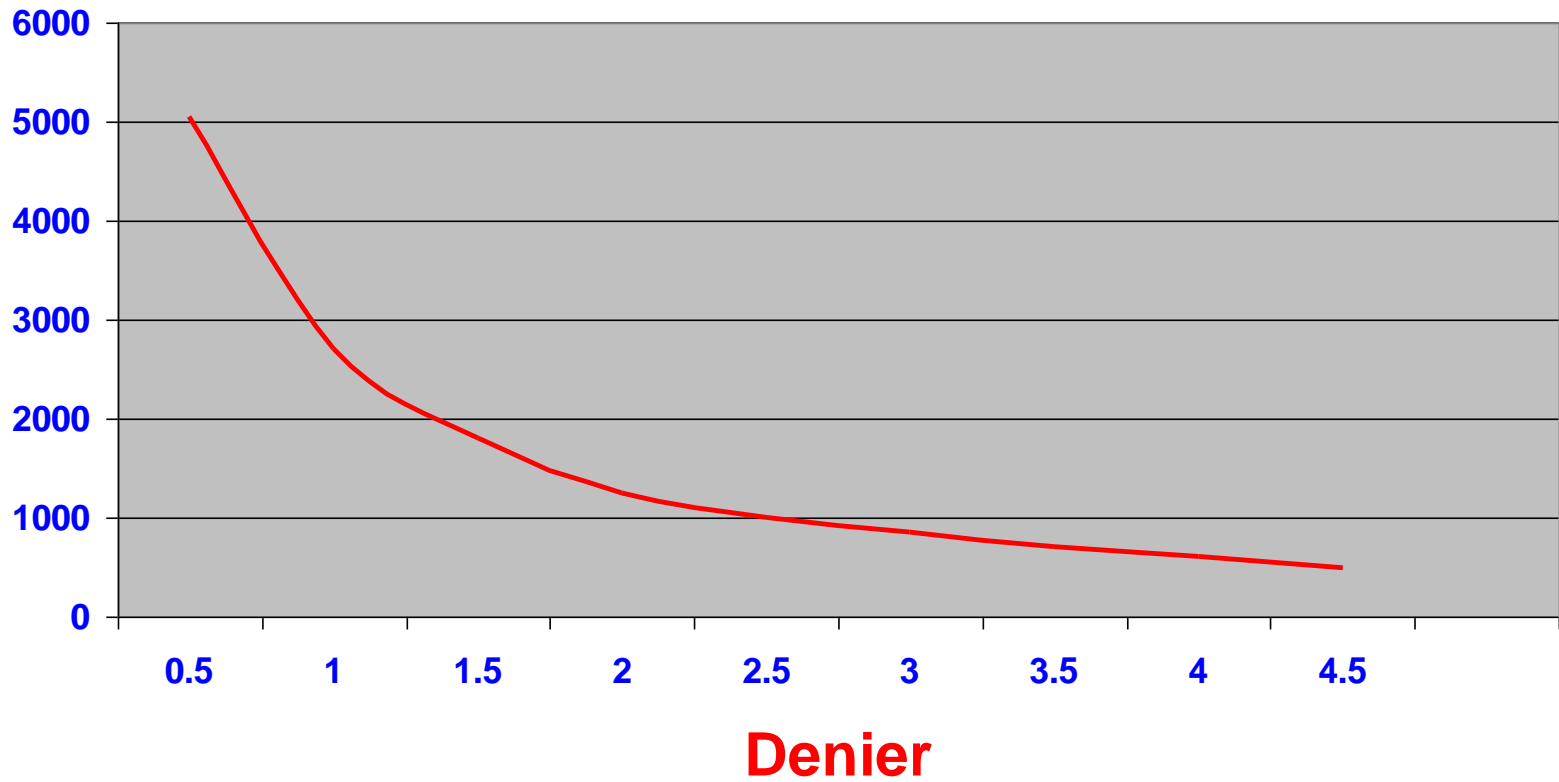


0.7 denier polyester fiber



2.25 denier polyester fiber

Illustration of the Length, in Miles, of 1 Pound of Fiber



TESTING OF BAGHOUSE FILTRATION PRODUCTS

ASTM D6830-02

RUN ID.	ETS Test #
FABRIC DESIGNATION	Southern Felt Style #
MANUFACTURER	Southern Felt
DUST FEED	Pural NF (Alumimum Oxide) ASTM- minimum 40% of dust concentration less than 2.5 micron Test dust particle size distribution was 77.35% less than 2.5 micron
AIR TO CLOTH RATIO	2 cubic meters/minute/square meter 6.6/1 cubic feet/minute/square foot
PULSE PRESSURE	5.27 kilogram force/square centimeter (75 psi)
PULSE ON DEMAND	Cleaning cycle set to clean at 10.16 centimeters (4") differential pressure
CONDITIONING PERIOD	10,000 pulses at 3 second intervals to simulate long term operation
RECOVERY PERIOD	30 normal pulse cycles set to clean at 4" differential pressure

TESTING OF BAGHOUSE FILTRATION PRODUCTS

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VERIFICATION OF TEST RESULTS

Mean Outlet Particle Conc.
PM 2.5 (gr/dscf)

6 hour test period with the pulse cycle set to clean at 10.16 centimeters (4") differential pressure

Initial Residual Pressure
Drop (in. w.g.)

Outlet emissions in grains/dry standard cubic feet

Differential pressure at the start of the test period after the first pulse in in. w.g.

Change in Residual Pressure
Drop (in. w.g.)

The difference in differential pressure at the start and the end of the test period in in. w.g.

Average Residual Pressure
Drop (in. w.g.)

Average differential pressure for the 6 hour test period in in. w.g. Average is based on 60 minute blocks

Mass Gain of Filter
Sample (g)

Difference in weight in grams of the test samples at the start and at the end of the test period

Average Filtration Cycle
Time (s)

Number of seconds between pulses to maintain 4" differential pressure

Number of Pulses

Total number of pulses for the 6 hour test period set to clean at 4" differential pressure

REMOVAL EFFICIENCY (%)

Dust Conc. (gr/dscf)
PM 2.5

Inlet dust loading in grains/dry standard cubic feet
% of filtration efficiency on 2.5 micron dust

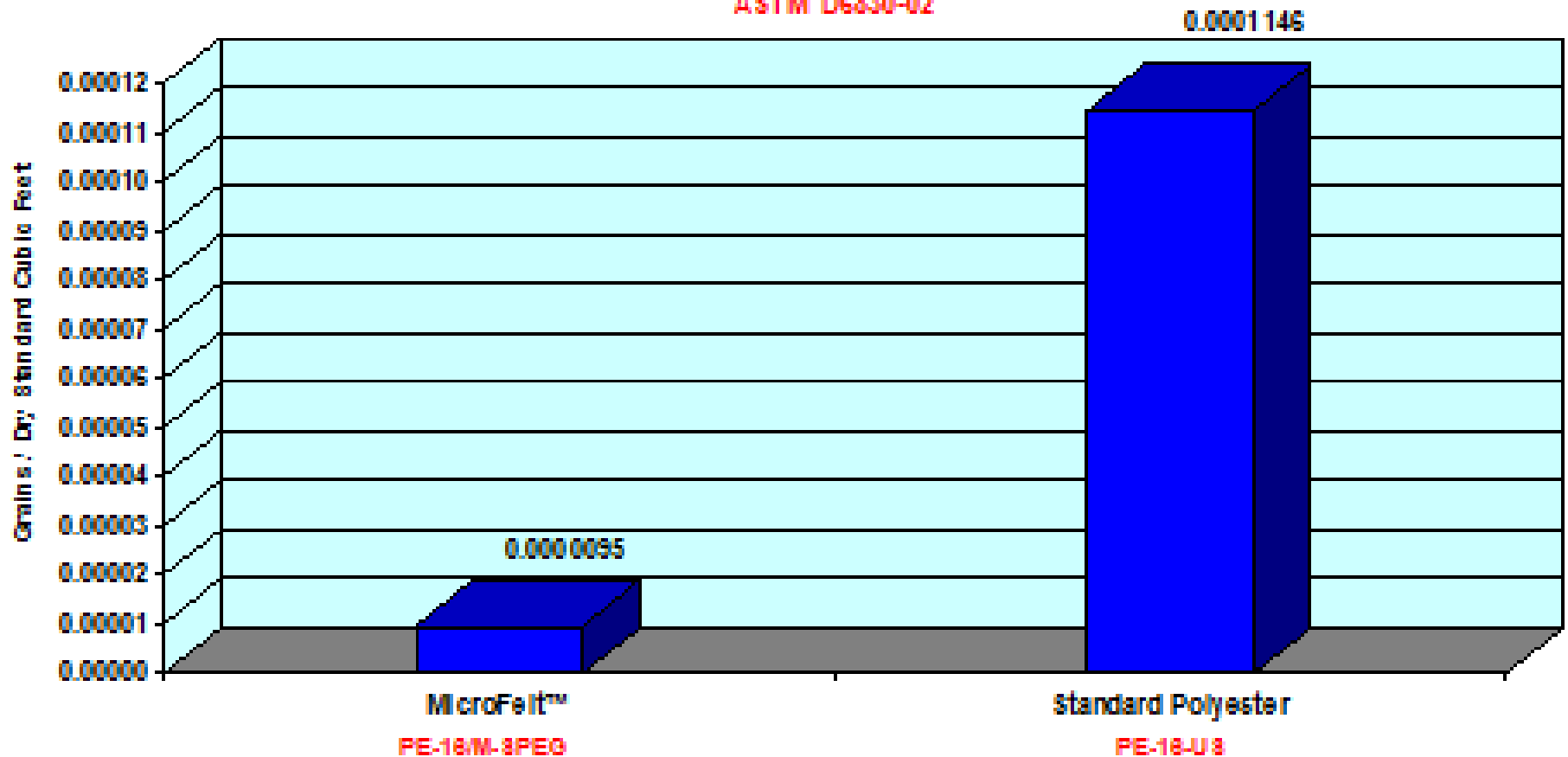
Polyester Micro-Maxx™

Style:	PE-16/M-SPEG
Construction:	Scrim-supported needlefelt
Composition:	100% polyester using micro-denier and standard fiber deniers with proprietary manufacturing technique
Finish:	Heatset, glazed one side
Weight:	15.0 – 17.0 oz/ sq yd
Thickness:	0.050" – 0.070"
Air Permeability:	15 – 25 cfm
Mullen Burst Strength:	400 psi minimum
Dimensional Stability:	3% maximum shrinkage at 300° F for 2 hours
Temperature resistance	
Continuous:	275° F
Peaks:	300° F
Resistance to acids:	Fair
Resistance to alkalis:	Fair
Resistance to oxidation:	Good
Resistance to organic solvents:	Good



Polyester *MicroFelt™*

PM 2.5 Efficiency Testing
ASTM D6830-02



NOTE: TEST DUST PARTICLE SIZE DISTRIBUTION: 77% LESS THAN 2.5 MICRON

FABRIC DESIGNATION

PE-16-US

PE-16/M-SPEG

ASTM D6830-02 TEST RESULTS

Mean Outlet Particle Conc. PM 2.5 (g/dscf)	0.0001146	0.0000095
Initial Residual Pressure Drop (in. w.g.)	1.47	1.49
Change in Residual Pressur Drop (in. w.g.)	0.42	0.23
Average Residual Pressure Drop (in. w.g.)	1.74	1.63
Mass Gain of Filter Sample (g)	1.43	0.70
Average Filtration Cycle Time (s)	48	97
Number of Pulses	448	223

REMOVAL EFFICIENCY (%)

Dust Conc (gr/dscf)	8.17	7.87
PM 2.5 *	99.99818	99.99984

Dust Particle Size Distribution - 77.35% less than 2.5 micron

Micro-Maxx™

PM 2.5 Efficiency Testing

ASTM D6830-02

36% Lower emissions

Smaller particles captured

46% Reduction in pulse cycles

Required to maintain pressure drop

51% Less dust penetration

Increasing filter bag life

30% Savings on energy cost

Due to the reduced number of pulses

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