

Specialty Filtration Felts

14oz Polyester felt with Novates surface treatment

“Novates” is a urethane based, “partially embedded” surface treatment.

What distinguishes Novates from other surface treatments is its application. By partially embedding the emulsion during treatment, Novates retains a portion of the fibrous filtration (fig.1) of needled felt while adding the higher separation structure of the cellular urethane (fig. 2).

- Main Characteristics:
- Temperature limit for gas stream 275°/135° C
 - Higher efficiency when separating fine or sticky dusts
 - Excellent solution for fibrous dusts
 - Inherently oil and water repellent (hydrophobic and oleophobic)
 - Surface separation instead of depth filtration
 - Emissions below 1mg/Nm³ or .0004 grains/dscf possible with certain dusts

End Uses: Fibrous dusts (both organic and synthetic); sticky dusts, battery manufacturing; stearates and resins; minerals; chemicals.

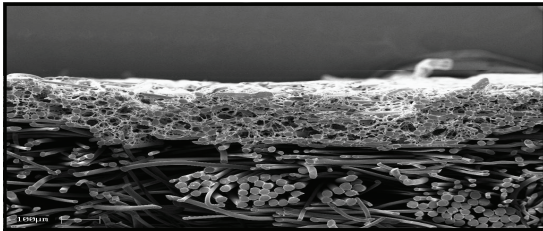


Fig.1 Polyester Needlefelt treated with Novates type T 452 NOV

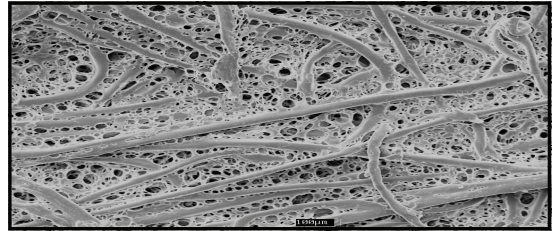


Fig.2 Partial embedding process

15.5 oz Polyester felt with Tetratex® PTFE Membrane

Tetratex® is a proprietary expanded microporous PTFE (Polytetrafluorethylene). PTFE is a hydrophobic thermoplastic polyester with unique properties to resist temperature, chemical degradation, mechanical action and electrical charge and has one of the lowest coefficients of friction against any solid.

- Main Characteristics:
- Temperature limit for gas stream 275°/135° C
 - Inherently oil and water repellent (hydrophobic and oleophobic)
 - Surface separation instead of depth filtration
 - Excellent dust cake release
 - High resistance to acids and alkalis
 - High filtration efficiency (fig.3)

End Uses: Fibrous dusts (both organic and synthetic); Sticky dusts; Applications requiring high filtration efficiency to meet strict emission standards.

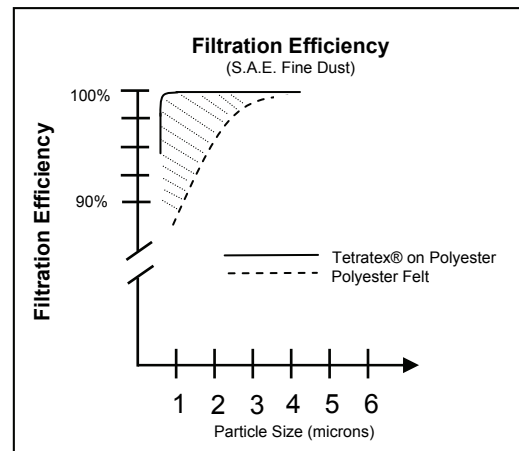


Fig.3 Tetratex® Membrane vs plain Polyester felt efficiency

Specialty Filtration Felts

16oz Polyester felt with Microfiber blend

Micro-Denier felts are produced with micro-denier fibers which provide the highest filtration efficiency of any non-membrane filter felts.

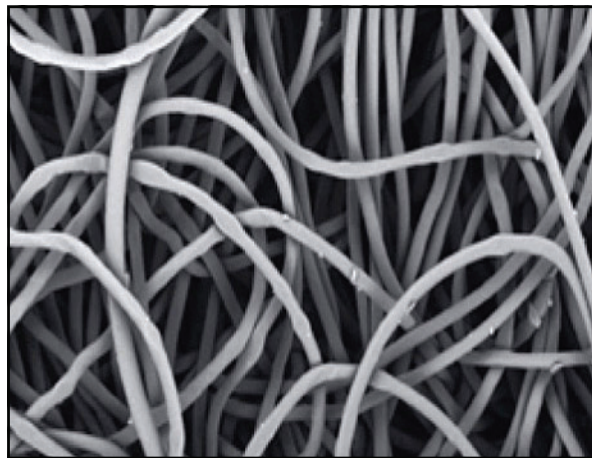
Micro-denier vs Macro-denier is the increased surface area of the micro-denier fibers that keep the dust particles on the surface of the felt versus being embedded in the pores themselves. The improvement in surface filtration also provides excellent cake release in addition to the excellent filtration efficiency. The improved cake release and lower ΔP leads to lower fan horsepower requirements and fewer pulses to maintain dust collector efficiency.

- Main Characteristics:
- Temperature limit for gas stream 275°/135° C
 - Improved efficiency 67% (ASTM D6830-02;PM 2.5) vs standard polyester felt
 - Lowered ΔP 45% vs standard polyester felt
 - Excellent emissions performance
 - Low operating pressure drop

End Uses: Applications requiring high filtration efficiency to meet strict emission standards; Customers looking to lower operating costs.



Scanning electron microscopy image: standard-needle felt



Scanning electron microscopy image: Microfiber needle felt