THE NEXT GENERATION OF FILTER MEDIA

AFT® H Filter Bags for clinker cooler baghouses
Hybrid aramid felt that perform at membrane filtration efficiency

Advanced Filtration Technology that provides new options for the toughest environmental challenges

Since NESHAP regulations have been implemented it has forced Cement plants to reconsider baghouse practices and filter media options. In some case plants still have older designed baghouses that may have challenges such as being undersized, and failing structural issues with tubesheets, inlet diffusers, and door seals. Another concern is that clinker dust is considered very abrasive and combined with high inlet velocities may make ePTFE membrane media products vulnerable in regards to abrasion.

This has plants looking for a filter bag option that can meet the tough conditions while still providing dust capture efficiencies to stay NESHAP compliant. The additional benefit is achieving better filtration results while achieving increase bag life performance.

The answer is... **AFT® H**

We have developed a hybrid felt that can handle the temperatures (190°C), the high inlet velocities, and the abrasive dust while meeting environmental regulations. AFT H will provide the following benefits:

- Best available technology for non-membrane media both in efficiency and differential pressure
- Longer bag life
- Withstand tough conditions includes highly abrasive dust
- No membrane installation concerns so throw away the protective sleeves
- No membrane concerns with abrasive dust. There is no membrane but nearly the same dust capture efficiencies
- NESHAP compliant

### Main benefits

- Increased efficiencies
- Lower differential pressure
- Increased durability
- Lower operational costs
- Longer Bag life
# AFT® H Aramid vs. Aramid with ePTFE Membrane Filter Bags

<table>
<thead>
<tr>
<th></th>
<th>12oz AFT H Aramid</th>
<th>16 oz Aramid membrane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support</td>
<td>Fiber</td>
<td>Fiber</td>
</tr>
<tr>
<td>Weight (oz/yd²)</td>
<td>11.8</td>
<td>15.1</td>
</tr>
<tr>
<td>Air permeability (cfm)</td>
<td>Min 32 Max 36</td>
<td>Min 4.16 Max 5.1</td>
</tr>
<tr>
<td>Thickness (mil)</td>
<td>Min 78 Max 85</td>
<td>Min 78 Max 84</td>
</tr>
<tr>
<td>Mullen burst (psi)</td>
<td>500+</td>
<td>500+</td>
</tr>
<tr>
<td>Tensile (MD lbf) average</td>
<td>196</td>
<td>327</td>
</tr>
<tr>
<td>Tensile (CD lbf) average</td>
<td>305</td>
<td>298</td>
</tr>
<tr>
<td>Elongation @ 11.24 lbf (%)</td>
<td>1.7</td>
<td>1.5</td>
</tr>
<tr>
<td>Heat stability (% shrinkage at 450 F)</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

## VDI test data (ASTM D6830-02)

<table>
<thead>
<tr>
<th></th>
<th>0.6</th>
<th>0.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total of Abs (mg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total efficiency %</td>
<td>99.997</td>
<td>99.996</td>
</tr>
<tr>
<td>Total emissions %</td>
<td>0.003</td>
<td>0.004</td>
</tr>
<tr>
<td>Clean gas concentration mg/m³</td>
<td>0.05</td>
<td>0.07</td>
</tr>
</tbody>
</table>

The property values listed in this specification are determined through statistical sampling from production campaigns and are subject to industry-wide tolerances. Typically test protocols requires averaging at least ten representative measurements to produce a reported value and the company reserves the right to make amendments without notice.

![Needlefelt 150x magnification](image1)

![AFT® H 150x magnification](image2)
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