Filter media
ti2011
Polyester fleece with stainless steel fibres and PTFE membrane, electrostatical conductive

1. Features

The filter media Ti 2011 is specially engineered for filtration of very fine, electrostatically charged and flammable dust. This pioneering filter media combines a polyester fleece with stainless steel fibres and with a laminated PTFE membrane and silver fibres. Compared to other electrostatical conductive filter media its surface is white. Electrostatically charged particles transfer their charge via the membrane to the conductive polyester media. Ti 2011 is a composite media that makes the advantages of surface filtration combined with a white media accessible to ATEX applications in the food and pharmaceutical industry.

Characteristics

- Specially designed for filtering electrostatically chargeable and explosive fine dusts
- Efficient surface filtration thanks to the microporous PTFE membrane
- High mechanical strength
- High load capacity
- Very smooth, fibre-free surface
- Excellent cleaning properties
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "M" and EN 1822-3 class "E10" at v ≤ 1 m/min
- Filter media is conform to regulations (EC) No. 1935/2004 and (EU) No. 10/2011 as well as FDA 21 CFR CH. I §177.1550 requirements
- Electrostatic behaviour tested according to DIN EN 54345 Part 5
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h]</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 2011</td>
<td>Polyester fleece with stainless steel fibres and PTFE membrane</td>
<td>0.65</td>
<td>350</td>
<td>180 at Δp 200 Pa</td>
<td>130</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EN 1822-3 &quot;E10&quot;</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!
Electrostatic resistance according to DIN EN 5435 Part 1 and 5: \(< 1 \times 10^6 \Omega\)

3. Filtration efficiency

Filtration efficiency:

\[
\eta = \frac{x}{y} = \text{Filtration efficiency} \quad \%.
\]

Test conditions:
- Filter surface load: \(3.36 \text{ m}^3/\text{m}^2\text{min}\)
- Mass concentration: \(200 \text{ mg/m}^3\)
- Test dust: Dolomit DRB 20 (Rock flour)

These values may vary depending on the nature of the dust, the composition of the gas and the cartridge design.

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>x</td>
<td></td>
<td></td>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
<td>Abrasion resistance</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
<td>Cleanability (jet pulse)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
<td>Washability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These properties are of purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

Please contact us for detailed technical information, any open questions and for general expert advice. Completion of the relevant questionnaire would facilitate in the coordination of all important parameters. Comprehensive documentation on our product range, cleaning units and cartridges can be provided.