HEPA Corporation offers high temperature SHR-88, HEPA and ULPA filters in five temperature ranges for applications up to 750°F (399°C)*. Frames are constructed of extruded aluminum, galvanized steel, or stainless steel. Silicone or fiberglass gaskets are standard. A silicone gel seal with a maximum service temperature of 392°F (200°C) can also be provided.

**filter media**
All high temperature filters are manufactured using a microfiber media bonded together with acrylic binders. At temperatures exceeding 500°F (260°C) the binder turns off and may discharge smoke until the binder is completely incinerated. Products should not be introduced into the heated environment until all smoke is exhausted.

**testing**
Each high temperature filter is tested with thermally generated DOP for appropriate efficiency per MIL-STD 282. Filters are challenged with a virtually monodispersed aerosol of 0.30 micron in size. By measuring the upstream and downstream concentration of these particles with a Q107 penetrometer, the penetration is determined and the efficiency calculated.

* Successfully tested up to 870°F (466°C).

**sealant methods**
The integrity of high temperature filters is assured by either an adhesive or "glass pack" sealing method, depending upon the temperature rating of the filter:

<table>
<thead>
<tr>
<th>model</th>
<th>max temperature</th>
<th>sealant</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST2</td>
<td>230°F (110°C)</td>
<td>urethane</td>
</tr>
<tr>
<td>ST4</td>
<td>400°F (205°C)</td>
<td>clear silicone</td>
</tr>
<tr>
<td>ST5</td>
<td>500°F (260°C)</td>
<td>red silicone</td>
</tr>
<tr>
<td>ST7</td>
<td>750°F (399°C)</td>
<td>glass pack</td>
</tr>
</tbody>
</table>

Since silicone sealants crack and erode at temperatures exceeding 500°F (260°C), filters meant for continuous service up to 750°F (399°C) use a glass pack method in which a fiberglass mat is compressed between the filter pack and frame until a positive seal is achieved. While not an adhesive seal, the glass pack is a mechanical seal which causes the mat to function much like the medium of the filter itself. The fiberglass mat contains phenolic resins which burn off at temperatures above 300°F (149°C) and may discharge smoke until phenolic resins are completely incinerated. Products should not be introduced into the heated environment until all smoke is exhausted.
HEPA-ThermaGard™
standard high temperature filter performance characteristics

11-1/2" deep, 99.97%@0.3µ

5-7/8" deep, 99.97%@0.3µ

3" deep, 99.97%@0.3µ

Hepa Corporation
3071 E. Coronado Street
Anaheim, California 92806-2698
phone (714) 630-5700
fax (714) 630-2894
www.hepa.com
e-mail: info@hepa.com

Form #41492