**DURATAN®**

**Technical Data**

| Glass Type/Application | Prestressed borosilicate glass 3.3, chemically and thermally highly resistant  
Flameproof lighting |
|------------------------|--------------------------------------------------------------------------------|

**Physical Data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient of mean linear thermal expansion $\alpha(20°C; 300°C)$ (ISO 7991)</td>
<td>$3.3 \times 10^{-6} \text{K}^{-1}$</td>
</tr>
<tr>
<td>Transformation temperature $T_g$ (ISO 7884-8)</td>
<td>$525 \degree \text{C}$</td>
</tr>
<tr>
<td>Glass temperature at viscosity $\eta$ in dPa·s</td>
<td></td>
</tr>
<tr>
<td>$10^{13}$ (annealing point) (ISO 7884-4)</td>
<td>$560 \degree \text{C}$</td>
</tr>
<tr>
<td>$10^{7.6}$ (softening point) (ISO 7884-3)</td>
<td>$825 \degree \text{C}$</td>
</tr>
<tr>
<td>$10^4$ (working point) (ISO 7884-2)</td>
<td>$1260 \degree \text{C}$</td>
</tr>
<tr>
<td>Stress-optical coefficient $K$ (DIN 52314)</td>
<td>$4.0 \times 10^{6} \text{mm}^2 \cdot \text{N}^{-1}$</td>
</tr>
<tr>
<td>Density $\rho$ at 25°C</td>
<td>$2.23 \text{g} \cdot \text{cm}^{-3}$</td>
</tr>
<tr>
<td>Modulus of elasticity $E$ (Young’s modulus)</td>
<td>$63 \times 10^3 \text{N} \cdot \text{mm}^{-2}$</td>
</tr>
<tr>
<td>Poisson’s ratio $\mu$</td>
<td>$0.2$</td>
</tr>
<tr>
<td>Thermal conductivity $\lambda_w$ at 90°C</td>
<td>$1.2 \text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$</td>
</tr>
<tr>
<td>Log of the electric volume resistivity ($\Omega \cdot \text{cm}$)</td>
<td></td>
</tr>
<tr>
<td>at 250°C</td>
<td>$8.0$</td>
</tr>
<tr>
<td>at 350°C</td>
<td>$6.5$</td>
</tr>
<tr>
<td>$t_{\lambda 100}$</td>
<td>$250 \degree \text{C}$</td>
</tr>
<tr>
<td>Dielectric constant $\varepsilon$ for 1 MHz at 25°C</td>
<td>$4.6$</td>
</tr>
<tr>
<td>Dielectric loss factor tan $\delta$ for 1 MHz at 25°C</td>
<td>$37 \times 10^{-4}$</td>
</tr>
<tr>
<td>Refractive index $n_d$ ($\lambda = 587.6$ nm)</td>
<td>$1.473$</td>
</tr>
</tbody>
</table>

**Chemical Resistance**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrolytic resistance (ISO 719)</td>
<td>Class HGB 1</td>
</tr>
<tr>
<td>Acid resistance (DIN 12116)</td>
<td>Class S 1</td>
</tr>
<tr>
<td>Alkali resistance (ISO 695)</td>
<td>Class A 2</td>
</tr>
</tbody>
</table>

The heavy metal content for the elements lead, cadmium, mercury and hexavalent chromium is below 100 ppm

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Business Segment Tubing / 1/2013

SCHOTT glass made of ideas