



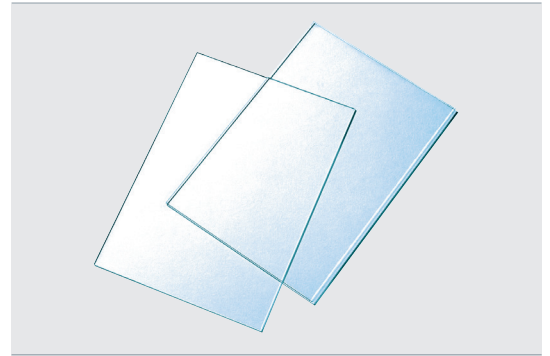
MATERION

// BALZERS OPTICS

Calflex™ 3000 SP

Heat protection filter for high temperature applications

Materion Balzers Optics' Calflex™ 3000 SP are high performance blocking filters for IR radiation. Calflex™ 3000 SP are produced with Optics Balzers's patented sputtering deposition technology, providing very dense coatings with excellent optical stability both at high temperature and harsh environmental conditions. Calflex™ 3000 SP is automotive OEM qualified and does meet the ECE white requirements.



Benefits

- Automotive OEM qualified
- ECE white without long-term degradation
- Thermal stability up to 400 °C
- Environmental stability
- Narrow tolerances
- Excellent heat blocking NIR+IR
- High volume production capabilities with consistent quality

Applications

- Automotive headlights
- Medical lighting
- Entertainment lighting

Technical Data

Transmission AOI = 0°

$T_{avg} > 80\%$ $\lambda = 425 - 680 \text{ nm}$

$T_{avg} < 3\%$ $\lambda = 800 - 1150 \text{ nm}$

$T_{avg} < 8\%$ $\lambda = 1150 - 2500 \text{ nm}$

Size

Any sizes, upon request

Glass

Corning XG or equivalent

Environmental Performance

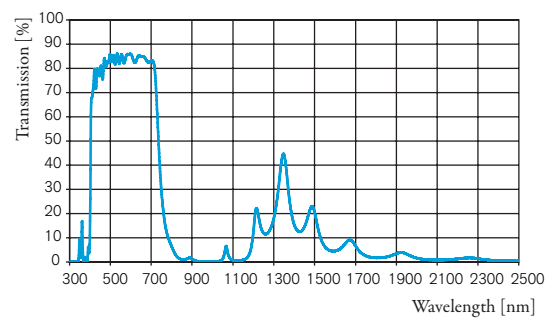
Adherence DIN ISO 9211-4-02

Cheesecloth DIN ISO 9211-4-01

Humidity DIN ISO 9022-12-07-1 and 9022-16-07b-1

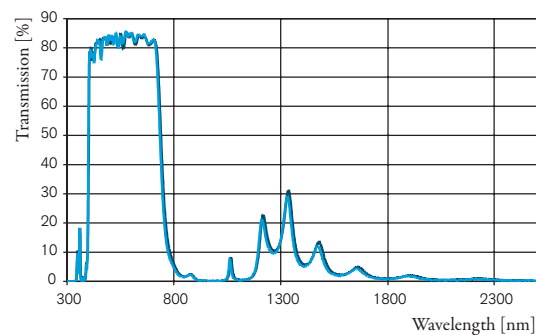
Longterm max. heat load up to 400 °C

Calflex™ 3000 SP



Spectral performance of the Calflex™ 3000 SP

Thermal stability



Long-term temperature stability of the Calflex™ 3000 SP at 400 °C

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Subject to technical change without notice