

## 12.5 x 12.5mm, Protective Overcoat Wire Grid Polarizer



Stock #12-645 **20+ In Stock**

A\$380<sup>.80</sup>

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| Volume Pricing |                               |
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| Qty 1-10       | A\$380.80 each                |
| Qty 11+        | A\$324.80 each                |
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### Product Downloads

### General

Linear Polarizer **Type:**

**Note:**  
When the Reference Mark is orientated to the 3 or 9 o'clock position, the transmission axis runs left to right.

### Physical & Mechanical Properties

10.5 x 10.5 **Clear Aperture CA (mm):**

|             |                                    |
|-------------|------------------------------------|
| 12.50       | <b>Length (mm):</b>                |
| 12.5 x 12.5 | <b>Dimensions (mm):</b>            |
| 0.70 ±0.07  | <b>Thickness (mm):</b>             |
| ±0.2        | <b>Dimensional Tolerance (mm):</b> |
| Wire Grid   | <b>Construction:</b>               |
| ±1.0        | <b>Alignment Tolerance (°):</b>    |
| 12.50       | <b>Width (mm):</b>                 |

## Optical Properties

|                                                        |                                            |
|--------------------------------------------------------|--------------------------------------------|
| 0 ±20                                                  | <b>Angle of Incidence (°):</b>             |
| BBAR (400-700nm)                                       | <b>Coating:</b>                            |
| 348:1 @ 450nm<br>885:1 @ 550nm<br>1229:1 @ 650nm       | <b>Extinction Ratio:</b>                   |
| <a href="#">Corning Eagle XG</a>                       | <b>Substrate:</b> <input type="checkbox"/> |
| 80-50                                                  | <b>Surface Quality:</b>                    |
| 87                                                     | <b>Transmission (%):</b>                   |
| ±2.5 @ 420 - 700nm                                     | <b>Transmission Tolerance (%):</b>         |
| R <sub>avg</sub> <1% @ 400 - 700nm (Back of Substrate) | <b>Coating Specification:</b>              |
| 420 - 700                                              | <b>Wavelength Range (nm):</b>              |

## Material Properties

|                            |                           |
|----------------------------|---------------------------|
| 31.7 x 10 <sup>-7</sup> °C | <b>Thermal Expansion:</b> |
|----------------------------|---------------------------|

## Environmental & Durability Factors

|             |                                    |
|-------------|------------------------------------|
| -40 to +200 | <b>Operating Temperature (°C):</b> |
|-------------|------------------------------------|

## Regulatory Compliance

|                           |                                    |
|---------------------------|------------------------------------|
| <a href="#">Compliant</a> | <b>RoHS 2015:</b>                  |
| <a href="#">Compliant</a> | <b>Reach 224:</b>                  |
| <a href="#">View</a>      | <b>Certificate of Conformance:</b> |

## Product Details

- Reflect S-Polarized Light, Transmit P-Polarized Light
- Protective Overcoat for Easy Handling and Cleaning
- Lighter, Thinner Design than Traditional [Wire Grid Polarizers](#)
- Overcoat Temperature Stability up to 200°C

Protective Overcoat Wire Grid Polarizers are used to reflect s-polarized light while transmitting p-polarized light in the visible spectrum. These polarizers consist of a thin aluminum wire grid attached to a glass substrate that is treated with a hard, protective coating. The overcoat protects the wire grid structure from scratches or other damage due to mechanical stress while enabling lighter, thinner designs compared to traditional [Wire Grid Polarizers](#) that use cover glass. The protective coating on these polarizers allows for them to be easily handled and cleaned, unlike [bare wire grid polarizers](#) where handling and cleaning is not recommended. Protective Overcoat Wire Grid Polarizers can be used in environments with high temperatures up to 200°C for over 1000 hours with minimal impact on performance.

**Note:** Reference marks indicate the axis of polarization.