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



Stock #12-645 [CONTACT US](#)

⊖ 1 ⊕ ₹16,971

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### 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 885:1 @ 550nm 1229:1 @ 650nm	<b>Extinction Ratio:</b>
Corning Eagle XG	<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>
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## Environmental & Durability Factors

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

Compliant	<b>RoHS 2015:</b>
Compliant	<b>Reach 224:</b>
View	<b>Certificate of Conformance:</b>
United States	<b>Country of Origin:</b>
Edmund Optics India Private Limited	<b>Imported By:</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.