

[See all 21 Products in Family](#)

50 x 50mm, $\lambda/4$ Retarder Film (WP140HE)



Retarder Film with protective film removed



Stock #14-723 **20+ In Stock**

⊖ 1 ⊕ €21²⁵

ADD TO CART

Volume Pricing	
Qty 1-10	€21,25 each
Qty 11+	€17,90 each
Need More?	Request Quote

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Retarder Film **Type:**

Note:
Fast axis is indicated by a black stripe on the protective film. This film should be removed before use.

Physical & Mechanical Properties

Length (mm):

50.00

Dimensions (mm):

50.0 x 50.0

Thickness (mm):

0.06 ±0.003

Dimensional Tolerance (mm):

+0.0/-0.5

Construction:

Polarizing Film

Width (mm):

50.00

Optical Properties

Design Wavelength DWL (nm):

588

Substrate:

[Polymer Film WP140HE](#)

Retardance:

$\lambda/4$

Transmission (%):

>89

Phase Shift (°):

90.00

Wavelength Range (nm):

400 - 700

Index of Refraction (n_d):

1.58

Retardation (nm):

147 ±4

Material Properties

Haze (%):

<1

Environmental & Durability Factors

Operating Temperature (°C):

-40 to +120

Heat Resistance (°C x Hours):

80 x 1000

Regulatory Compliance

RoHS 2015:

[Compliant](#)

Certificate of Conformance:

[View](#)

Reach 235:

[Compliant](#)

Product Details

- Highly Durable Polymer Sheets
- $\lambda/4$ (WP140HE) Achromatic Retarder with Greater than 90% Transmission from 450-700nm
- $\lambda/4$ (WP140HE), $\lambda/2$ (WP280), and 1λ (WP560) Retarder Films Available

Polymer Retarder Film is an extremely durable, birefringent polymer sheet that has been designed to modify the polarization state of transmitted light. The highly transparent, achromatic $\lambda/4$ (WP140HE) and $\lambda/2$ (WP280) Polymer Retarder Films consist of a single layer, modified polycarbonate sheet that acts as an achromatic retarder, and is optically and mechanically sound up to 90°C or 80°C respectively. The 1λ (WP560) Polymer Retarder Film consists of two $\lambda/2$ films that have been laminated together to create retardation values of 560nm. These films are ideal for use in a variety of coherent and polarized light applications, including circular polarizers, LCDs, and fiber optics.

Immediate Custom Quotes Available

If you have a need for any round, square, or rectangular size of a Polymer Retarder Film in dimensions between 3mm and 600mm, please visit our [Polarizing Film Tool](#). We'll provide an immediate quote, and can deliver the part to your requested size in approximately 3 weeks. A full list of standard manufacturing tolerances and restrictions are listed. For fully customized polymer polarizers to your requirements, visit our [Customized Polymer Polarizers Capabilities](#) page.

Technical Information

Polymer Retarder Film

