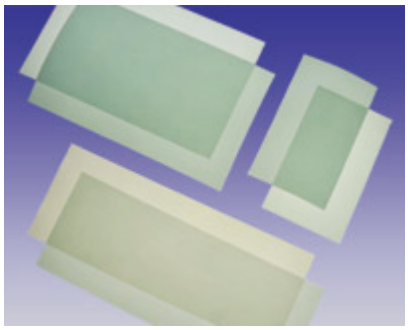
Linear Polarizers



Uses:

Linear polarizers are used in a wide variety of applications. A linear polarizer is an excellent solution in applications that require glare reduction due to reflected light. Camera filters,sunglasses, and machine vision systems greatly benefit from the use of a linear polarizer.

A linear polarizer can also be used to modulate the intensity of a light source. By placing two polarizers over top of each other and rotating one against the other, one can control the brightness. Aircraft cabin windows and telescope filters are ideal applications.

Photoelastic stress analysis benefits from the use of a polarizer. A polariscope can employ either a linear or circular polarizer. Transparent plastics become birefringent (double refracting) when stressed somewhat like a wave retarder. A linear or circular polarizer allows the viewer to visually see the stress patterns as evidenced by dark or isochromatic fringes.

Linear polarizers (and circular polarizes) are also used in passive 3D applications. API offers linear and circular polarized glasses and projection filters.

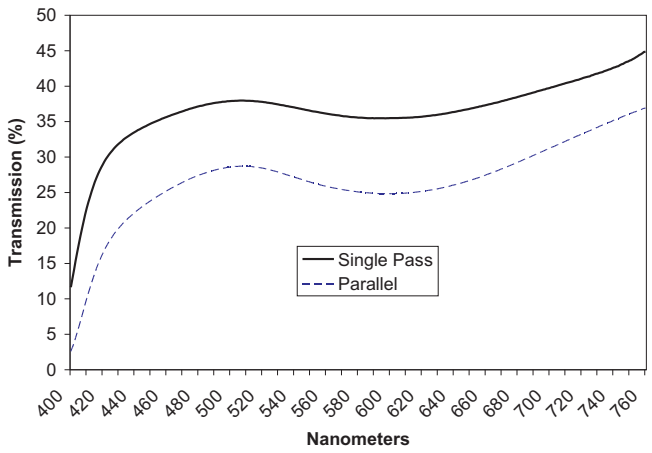
Data:

Product Code	**AP38-030T**
Description	Neutral Grey Linear Polarizer
Thickness	.030″ +/-.003″
Substrate	Cellulose Triacetate
Front Finish	Smooth, Uncoated
Back Finish	Smooth, Uncoated
Transmission-single pass	38%
Transmission-double pass, parallel	27%
Transmission-crossed	.167%
Efficiency	99.63%
Environmental	-50ºC to 70ºC

Other Options:

Other substrates: None for this product. Please see Acrylic and Glass options.

Single and Parallel Transmission in Unpolarized Light



Crossed in Unpolarized Light