

NEUTRAL DENSITY (ND) FILTERS FOR SPECTROSCOPY, MACHINE VISION, ELLIPSOMETRY AND PHOTOGRAPHY

Knight Optical's neutral density (ND) filters reduce transmission evenly across a portion of the spectrum by absorbing or reflecting. We supply high quality neutral density filters from stock or made to your specification.

Gelatin ND filters are a low budget option that have more fluctuation with wavelengths. For a narrower wavelength glass and metallic filters should be used. Gelatin filters work by absorption and can overheat quickly which can damage the filter. These filters can be cut easily to bespoke custom sizes.

Absorption or glass type ND filters attenuate light by absorption, they are more robust and have more uniform absorption characteristics. Schott glass ND filters attenuate by absorption, care must be taken to avoid overheating.

Metallic Neutral Density filters are coated with a thin metallic layer on a borosilicate or UV grade fused silica polished windows. They attenuate the light by reflection and therefore do not overheat. We stock uncoated borosilicate and UV fused silica substrates so custom Metallic filters can be supplied to your specification.



- ☒ Individually tested components are carried out in our state of the art metrology lab:
 - ☒ UMA device is used to measure transmission, absolute reflection and scattering of optical components.
 - ☒ Varian Cary 5000 spectrophotometer tests the reflection/transmission % of coatings and materials.
 - ☒ Agilent 660 FTIR spectrophotometer is used for testing reflection and transmission of coatings between 3.5µm and 45µm.
- ☒ Neutral Density filter sets are available on request. Supplied in a high quality wooden box, useful for laboratory and custom design applications.
- ☒ We can provide transmission and reflection curves at given wavelengths from 175nm up to 3200nm in TXT or CSV format.
- ☒ Knight Optical ensures all our components meet high quality standards.

For more information or to place an order contact our multilingual technical sales team and discover how Knight Optical's high quality Neutral Density filters and service can improve your instrumentation and supply chain experience.



T: +44 (0)1622 859444
info@knightoptical.co.uk
www.knightoptical.com