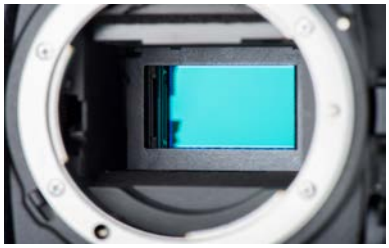
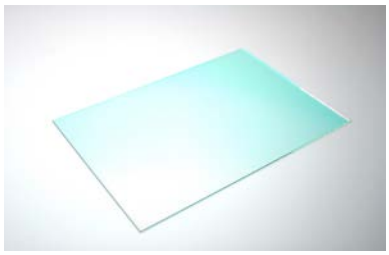
IR-Cut Filter Capabilities

KNIGHT OPTICAL

Our IR-cut filters are designed to block the NIR spectrum by means of reflection, while transmitting highly in the visible range. Our stock filters also block UV light below 350nm.

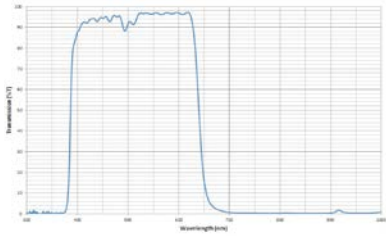


Automatic number plate recognition (ANPR) and modern camera systems, are highly sensitive to infrared light up to around 1000nm which can cause inaccurate colouration. By using or implementing an IR-cut filter, unwanted infrared light is reflected away from the detector and true to life colour is sustained.



Knight Optical's IR-cut filters are hot mirror coated on a quality borosilicate substrate which offers sharp transitions between the transmission and reflection bands to improve accuracy and overall control.

Borosilicate is chemically resistant to acidic and saline solutions and will not degrade under normal conditions. The substrate has a low thermal expansion meaning the optic can survive rapid changes in temperature whilst maintaining it's structural integrity.



Knight Optical's most frequently requested specifications for IR-cut filters are:

Sizes Available	
Square	<5mm - 400mm
Diameter	<5mm - 395mm
Thickness	1.1mm
Cutting Tolerance	+0.0/-0.20mm
Glass Substrate	Borosilicate/low-iron glass
Surface Quality	<60:40 scratch/dig
Transmission	Tavg>94% 420-620nm
Blocking	Tmax<2% 700-1000nm
Wavelength Accuracy	+/-10nm
Mounting	Can be mounted in a stock 25mm filter mount or in a custom mount designed to fit your application.

To keep up with the latest scientific developments, we guarantee that our in-house Metrology and Quality Assurance departments will not only deliver premium, individually inspected and tested optical components to your business, but should there be a need, can deliver bespoke optics designed to your exact specifications.

For more information on any of our optical services, to discuss your requirements or place a direct order with one of our technical sales team, please contact Knight Optical by Email: info@knightoptical.com or call direct on +44 1622 859 444 (UK, EUR or ROW) +1 401 583 7846 (USA & Canada).