

WAVEPLATES (UV-IR)



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Waveplates are manufactured from birefringent crystal materials that split monochromatic incoming beam into two orthogonally polarised beams travelling at different velocities. There will generally be one or more propagation directions (ordinary and extraordinary ray directions) depending on whether the material is uni-axial, bi-axial or multi-axial crystal. The velocities along the different beam directions through the crystal material vary inversely with their refractive indices. A phase shift occurs on beams recombination, as a direct consequence of the different velocities as one component is retarded relative to the other.

Medway Optics offers various forms of anti-reflection coated waveplates from zero-order to multiple-order, single plate to multi-plates, cemented to air-spaced. These cover wide spectral range (0.24-11 μ m) from many different materials including Calcite, Sapphire, Cadmium Sulphide, Cadmium Selenide and Cadmium Thiogallate. As a result, our waveplates (on their own or in combination with our Polarisers) find use in a wide range of commercial, industrial and medical instrumentations and applications.

