

- Spherical Lenses
- Cylindrical Lenses
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- Multi-Element
- Micro Optics
- Mirrors
- Prisms
- Substrates & Windows
- Beamsplitters
- Polarizers**
- Filter & Apertures

Mica Waveplates

- For use throughout the visible spectrum
- First order retardation calibrated at 550nm
- Protected by glass cover plates on both sides
- Precisely made from optical grade natural mica



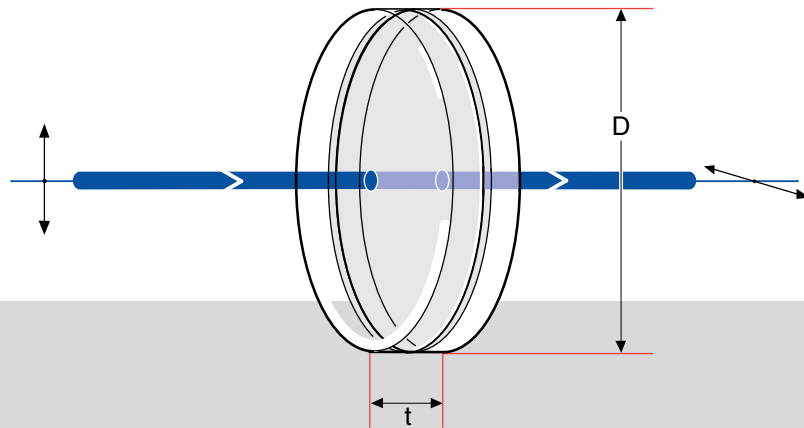
These useful broadband waveplates are manufactured by cleaving crystalline mica to have the precise required first order retardation at 550nm wavelength. They are useful throughout the visible spectrum from 400 to 700nm. The mica is sandwiched between optical glass discs for protection and ease of use. The optic axis is marked. These mica waveplates are uncoated.

Specifications & Tolerances

Dimensions: $\pm 0.2\text{mm}$
 Retardation: $\lambda/20$
 Material: Crystal mica and glass
 Coating: None

Wavefront: 2λ
 Surface quality: 40-20
 Index variation: $\Delta n \approx 0.00476 @ 550\text{nm}$

The index difference in mica is relatively small (0.0054 for mica as opposed to 0.0091 for quartz). It also cleaves easily and cleanly. The result is that it is fairly easy for an experienced technician to cleave entirely satisfactory quarter, half and full wave plates with just a razor blade, a small mallet, and an adequate supply of patience.



MICA WAVEPLATE

Mica Waveplates

Diameter, D (mm)	Thickness, t (mm)	Price	PART NUMBER	
			$\lambda/4$ retardation	$\lambda/2$ retardation
10.0	2.5		068-2240	068-2330
20.0	2.5		068-2250	068-2340
25.0	2.5		068-2260	068-2350
30.0	2.5		068-2270	068-2360
40.0	3.5		068-2280	068-2370
50.0	3.5		068-2290	068-2380

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