

Pellicle Beamsplitters

- No change in optical path length between reflected and transmitted light
- Pellicles eliminate second surface reflections
- Available in 1, 2 and 4 inch clear apertures
- Thickness uniformity is held to 2 waves per inch

Pellicles are thin nitrocellulose films which are stretched over a metal frame. Since they are less than 2 microns thick the reflected beams from both surfaces are essentially superimposed upon each other. Uncoated pellicles reflect 10% of the incident light when used at 45 degrees, thus providing a useful, low-intensity side beam. These pellicles can also be coated with various thin films in order to change the reflectivity and provide for a range of useful splitting ratios. See accompanying reflectivity curves.

The pellicles are offered in three sizes 1 inch, 2 inch, 4 inch clear aperture.



Pellicles are only 2 microns thick - and yet they are surprisingly strong and rugged. Their very low mass can survive considerable acceleration or deceleration without deflection or damage.

Specifications & Tolerances

Thickness uniformity: 2λ /inch

Surface quality: 40-20

Material: Nitrocellulose; nominal index 1.5

Diameter: +0, -0.5mm

Temperature range: -40°C to 150°C

Frame: Black anodized aluminum

Frame thickness: ± 0.1 mm

Coatings (@633nm): 8:92 - bare; 33:67 - dielectric; 40:40 - inconel; 50:50 - dielectric

Pellicle Beamsplitters

Aperture, A (Inches)	Frame Diameter, D (Inches) (mm)		Frame Thickness, t (Inches) (mm)		Split Ratio R:T	Price	PART NUMBER
1.00	1.38	34.9	0.19	4.8	10:90		038-3340
1.00	1.38	34.9	0.19	4.8	33:67		038-3670
1.00	1.38	34.9	0.19	4.8	40:40		038-3880
1.00	1.38	34.9	0.19	4.8	50:50		038-3550
2.00	2.50	63.5	0.25	6.4	10:90		038-3350
2.00	2.50	63.5	0.25	6.4	33:67		038-3680
2.00	2.50	63.5	0.25	6.4	40:40		038-3890
2.00	2.50	63.5	0.25	6.4	50:50		038-3560
4.00	4.50	114.3	0.25	6.4	10:90		038-3370
4.00	4.50	114.3	0.25	6.4	33:67		038-3770
4.00	4.50	114.3	0.25	6.4	40:40		038-4440
4.00	4.50	114.3	0.25	6.4	50:50		038-3580

Difference sizes and splitting ratios are available on request.

Spherical Lenses

Cylindrical Lenses

Lens Kits

Achromatic Doublets

Multi-Element

Micro Optics

Mirrors

Prisms

Substrates & Windows

Beamsplitters

Polarizers

Filter & Apertures

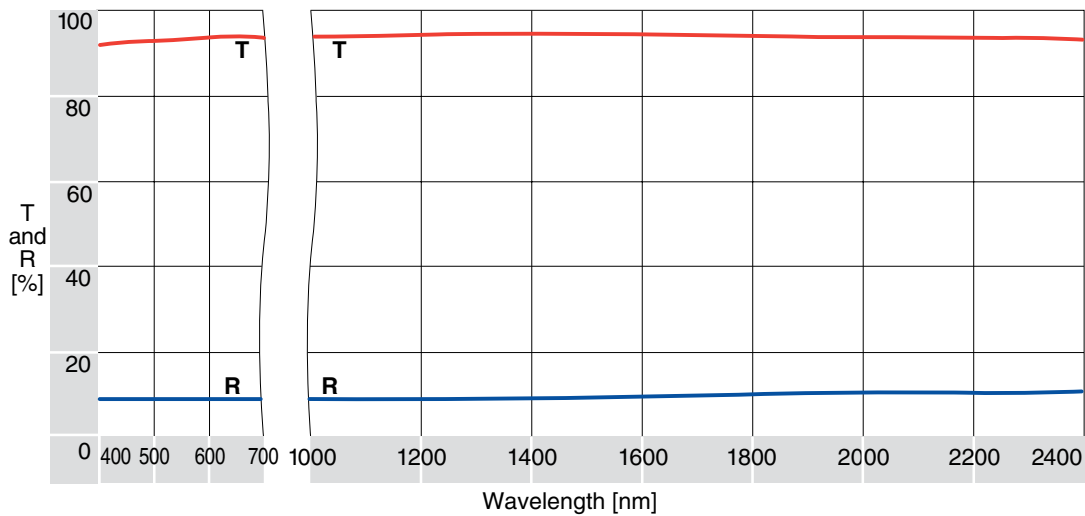
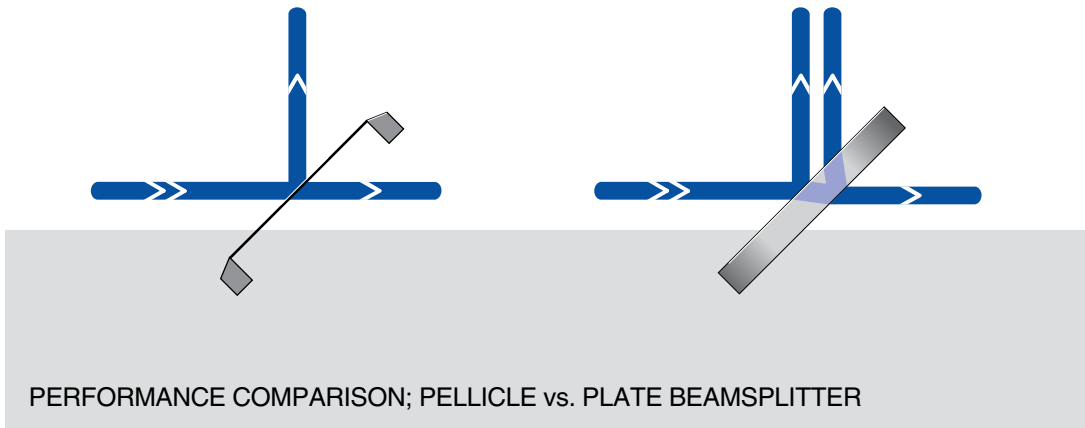
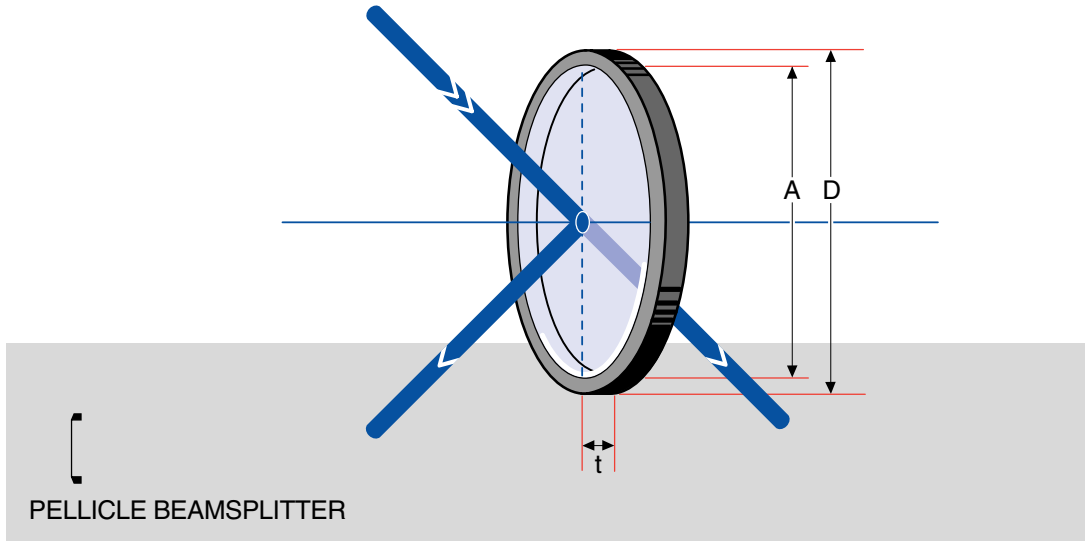
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OPTICAL COMPONENTS

- Spherical Lenses
- Cylindrical Lenses
- Lens Kits
- Achromatic Doublets
- Multi-Element
- Micro Optics
- Mirrors
- Prisms
- Substrates & Windows

Beamsplitters

- Polarizers
- Filter & Apertures

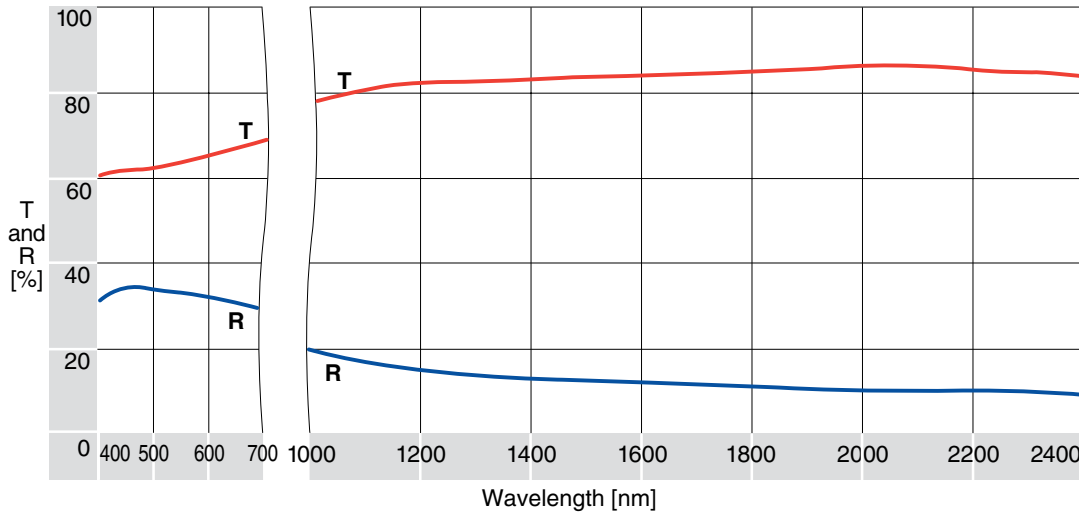


8:92 UNCOATED

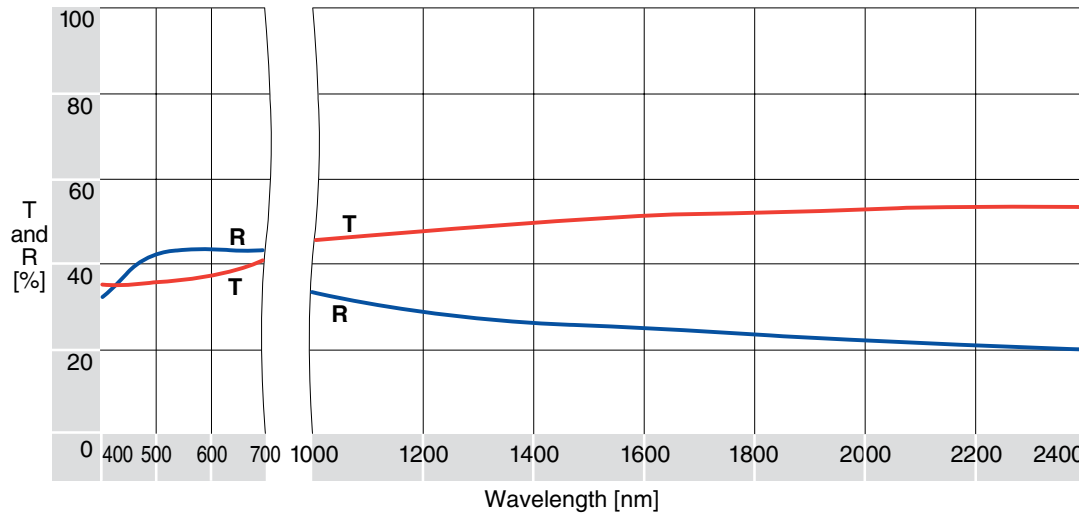
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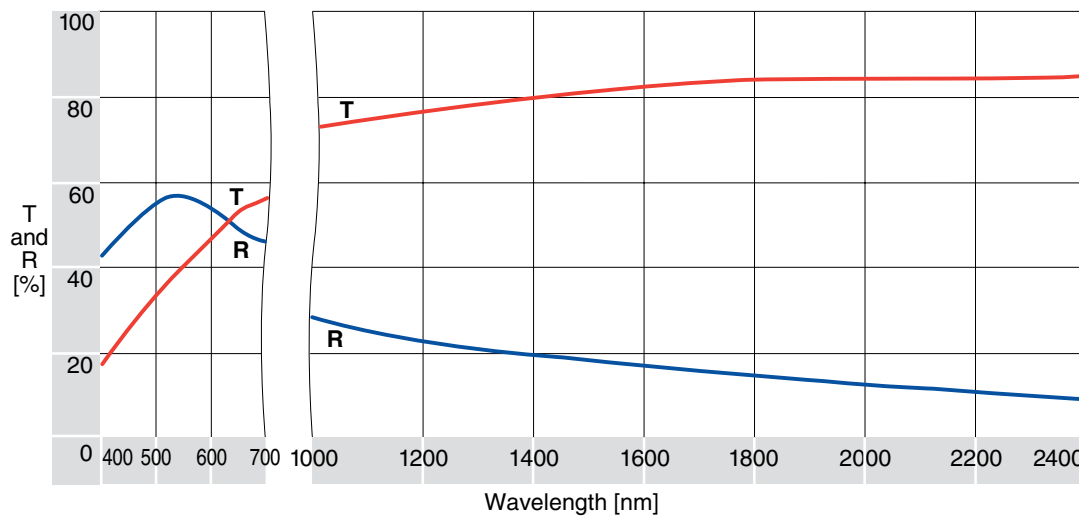
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33:67 DIELECTRIC



40:40 INCONEL



50:50 DIELECTRIC

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