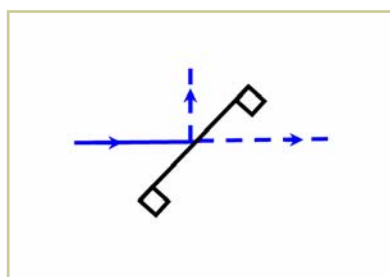


Pellicle Beamsplitters

In certain situations these pellicle beamsplitters have distinct advantages over either plate or cube beamsplitters.



The splitting surface is a 2µm thick nitrocellulose film, which has been stretched flat over a

lapped aluminium frame. As the material is so thin, the first and second surface reflections are superimposed resulting in a lack of ghost imaging. Also, there is no change in the optical path length for the two beams and no chromatic aberration is introduced into converging or diverging beams.

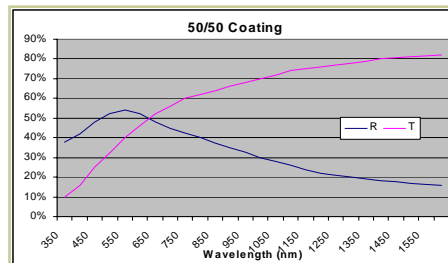
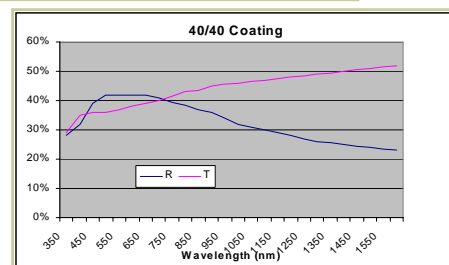
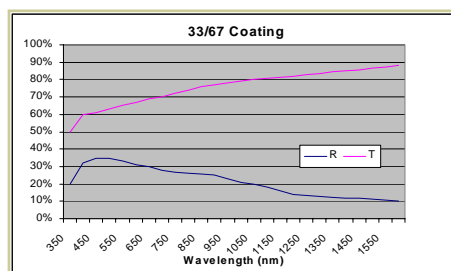
The natural reflectivity of this film at 45° provides 10% reflectance and 90% transmittance. Pellicles can be supplied uncoated and work well as 10% beamsplitters.

However, pellicles transmit from 400–2500 nm

Typical Specifications	
Substrate Material:	Nitrocellulose ($n_d=1.5$)
Surface flatness:	$2\lambda / 25\text{mm}$ @ 633 nm
Surface quality:	40/20
Dimensions:	+0.0 / -0.5 mm
Clear aperture:	> 85% of diameter
Reflectance uncoated:	8% +/- 3% in visible
Coatings available:	R:T = 33:67, 40:40 or 50:50
Temperature range:	-40 to +120° C

and may be coated

for 33%, 40% or 50% reflectance at 633 nm.



Pellicles sizes (in mm) are:

Frame diameter	Frame thickness	Clear aperture
34.9	4.8	25.4
63.5	6.4	50.8
88.9	6.4	76.2
114.3	6.4	101.6
165.1	9.5	152.4

To request a quote or to order, please specify:

Quantity — Clear aperture — R:T ratio (10/90, 33/67, 40/40, 50/50)

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For a quotation — please phone, fax or email us with details of your requirements.