

Interferometer Transmission Flats



Transmission flat with mounting option.

Used in a variety of industry-standard interferometer systems, Inrad Optics transmission flats measure reflected or transmitted wavefronts of other optics. Our deep understanding of interferometry allows us to produce finished optical surfaces that conform to the most demanding technical requirements related to:

- Surface roughness
- Sub-surface damage
- Optical coating consistency
- Birefringence and other intrinsic optical characteristics.

FABRICATION AND POLISHING EXPERTISE

We fabricate transmission flats from highly homogeneous, bubble-free fused silica, which we then polish to the interferometric standards required by precision optics manufacturers. With decades of experience in the super-precision polishing of optical materials, we can tailor our production processes to meet specific optical requirements.

COATING

Inrad Optics transmission flats are available uncoated, with a standard coating or with a custom coating on each surface. The standard coating choices are as follows. The front or reference side is coated with a partial reflector to enhance contrast of the fringe patterns or alternatively the backside is coated with an anti-reflective coating to eliminate secondary fringe patterns. Inrad Optics coats all transmission flats using proprietary evaporative vacuum coating processes. Inrad Optics utilizes both Ion Assist and Plasma Assist E-Beam coating technologies. New designs can be created for custom coating requirements.

MOUNTING OPTIONS

Inrad Optics transmission flats are available as standalone optics or mounted in ring style mounts. The mounted transmission flats fit industry-standard Fizeau interferometers for easy replacement and installation.

PACKAGING

Each transmission flat is packaged in a Pet-G container for unmounted glass or in a wooden box when mounted to the Inrad Optics designed ring.

SPECIFICATIONS

The flats are polished to a $\lambda/20$ flatness with a wedged backside of 10 -30 arc minutes.
The wedged backside eliminates etalon reflections.

P/N		Material	Dia (inches)	C/A (inch)	Style	Coating
CO1797	Transmission Flat	Fused Silica, FS-0A	4.5	4	Ring mounted	Standard Coating
CO1798	Transmission Flat	Fused Silica, FS-0A	6.5	6	Ring mounted	Standard Coating
CO1799	Transmission Flat	Fused Silica, FS-0A	13	12	Ring mounted	Standard Coating
CO1797-C	Transmission Flat	Fused Silica, FS-0A	4.5	4	Glass only	Standard Coating
CO1798-C	Transmission Flat	Fused Silica, FS-0A	6.5	6	Glass only	Standard Coating
CO1799-C	Transmission Flat	Fused Silica, FS-0A	13	12	Glass only	Standard Coating
CO1797-U	Transmission Flat	Fused Silica, FS-0A	4.5	4	Glass only	Uncoated
CO1798-U	Transmission Flat	Fused Silica, FS-0A	6.5	6	Glass only	Uncoated
CO1799-U	Transmission Flat	Fused Silica, FS-0A	13	12	Glass only	Uncoated

Standard Coating:

Front surface R = 4%, T= 63%+/-5% or Back surface AR Coating at 632.8nm