

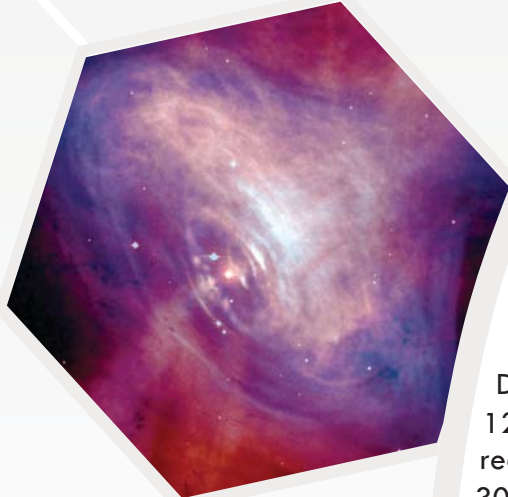


# PELHAM RESEARCH OPTICAL L.L.C.

Specializing in Precision VUV/UV Optical Coating and Service

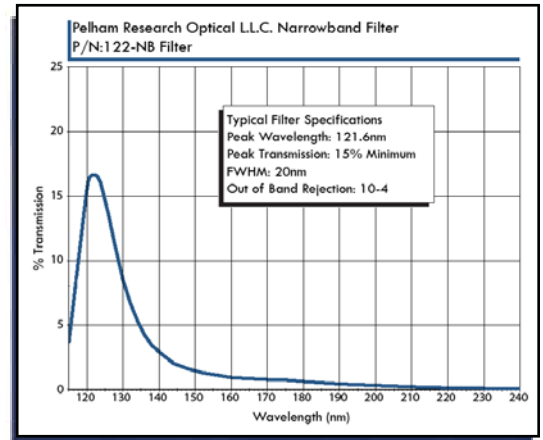
## Coatings for Astronomy Applications

For over 30 years we have been involved in designing and coating VUV/UV optical components for astronomy applications. Our team has had the pleasure of working on a wide range of aerospace projects which include TRACE Program, UVCS-SOHO Mission and WFPC II - Wide Field Planetary Camera on the Hubble Space Telescope and the AFM-Actuated Fold Mirror for the 1993 Hubble Servicing Mission. Pelham Research Optical state-of-the-art coating chambers have designed specifically for the difficult requirements of VUV/UV optical coating applications.



### VUV Bandpass Filters

Designed to isolate specific wavelengths in the VUV range down to 121.6nm (Lyman Alpha). These filters are ideal for low light application requiring strong visible rejection and have been flown in space for over 30 years. Filters are manufactured VUV grade MgF<sub>2</sub>, CaF<sub>2</sub> and Fused Silica. Image quality substrates are available for standard and custom designed optics. Also available UV neutral density filters and UV beamsplitters. Please see our website or contact our sales staff for more information



Peak Wavelength (nm)	FWHM (nm)	Minimum Peak %T
122 +/- 2.5 Lyman Alpha	~10	5
122 +/- 2.5 Lyman Alpha	~15	15
122 +/- 2.5 Lyman Alpha	~20	15
147 +/- 2.5	20 +/- 5	15
155 +/- 2.5	20 +/- 5	12
172 +/- 2.5	20 +/- 7.5	15
184.9 +/- 2.5 Hg	20 +/- 7.5	15
190 +/- 2.5	20 +/- 5	15

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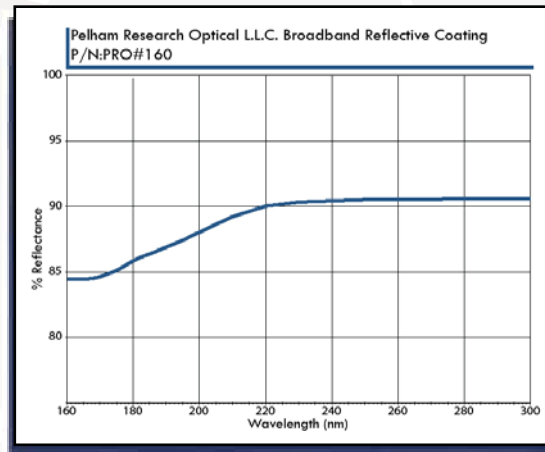
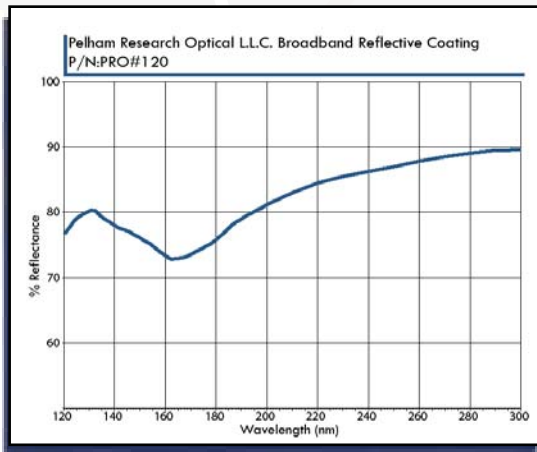
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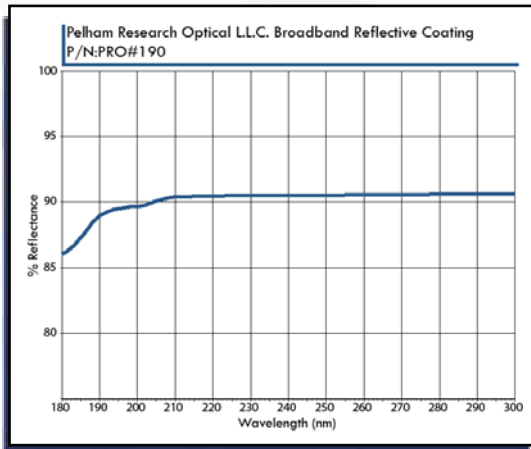
## VUV/UV Broadband Mirror Coatings

Pelham Research Optical VUV/UV broadband mirror coatings are designed to provide superior reflectance at critical vacuum wavelengths including 120nm, 160nm and 190nm, while providing consistent reflection far into the IR. This provides increased throughput for low light analytical applications in the VUV wavelength range, specifically for VUV spectrometers and monochrometers. These coatings are ideal for Cassegrain Reflector telescopes, requiring reflective coatings on the primary and secondary optics. Coatings can be supplied on PRO standard optics; customer supplied material or built to print from your supplied drawings.

### PRO#120, 160 and 190 Mirror Coatings



Typical Reflectance Curves for VUV/UV Broadband Reflectors



Peak Wavelength	Reflectance @ 12 Degrees	Part Number
120nm	>/=77%	PRO#120
160nm	>/=84%	PRO#160
190nm	>/=88%	PRO#190

### Metrology Capabilities

Pelham Research Optical's in-house metrology capabilities include UV-VIS-NIR spectrometers and vacuum (VUV) monochromators for reflectance and transmission measurements. To ensure consistent quality and coating performance, filters are measured for transmission (0 degree Angle of Incidence) and all broadband reflection coatings are measured in reflectance at normal incidence (12 degrees Angle of Incidence). A detail spectral curve is provided with all shipments.