

**X-RAY**

# Windows



## Applications

### WDXRF Systems

- Flow Proportional Counters
- Microanalysis
  - Column separation windows
- Detector Arrays

## ProLINE Series 20 Windows

### Ultra-thin Polymer X-ray Windows

ProLINE Series 20 windows are ideal for applications that require high transmission of low energy x-rays. ProLINE Series 20 windows have higher performance over stretched polypropylene and other commonly used WDXRF windows.

#### Features

Ultra-thin polymer window  
 Mechanically strong  
 Large open area  
 Charge dissipation  
 Uniform thickness  
 High purity

#### Benefits

High transmission of low energies  
 Long window life  
 Large detector area  
 Low detector noise  
 Uniform transmission  
 Low spectral contamination

### Window Composition

ProLINE Series 20 windows are composed of an ultra-thin layer of MOXTEK polymer and a charge dissipative layer of aluminum attached to a strong metal hexagonal support frame. Window frames may be provided by a customer or by MOXTEK

### X-Ray Transmission

ProLINE Series 20 windows are ideal for applications that require high transmission of low energy x-rays. Analysis of B(K<sub>α</sub>) is possible with this window. See transmission chart on the back of this data sheet.

### Vacuum Tightness

Windows typically have a leak rate of less than  $1 \times 10^{-3}$  mbar L/sec He.

### Mechanical Strength

ProLINE Series 20 windows are supported by a strong metal support grid. ProLINE Series 20 windows have withstood hundreds of cycles at a differential pressure of 1.2 atm without degradation in window performance.

### Charge Dissipation

Most ProLINE Series 10 windows are coated with 200 angstroms of aluminum for charge dissipation. A custom thickness can be requested.



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## Window Sizes and Active Area

Window active area geometry can be circular or rectangular. Maximum rectangular active area dimensions are 2.8" x 2.8" (70 x 70 mm). Maximum active area diameter is 4.0" (10.16 mm).

## Warranty

ProLINE Series 20 windows are warranted to be free of manufacturing defects.

## Ordering Information

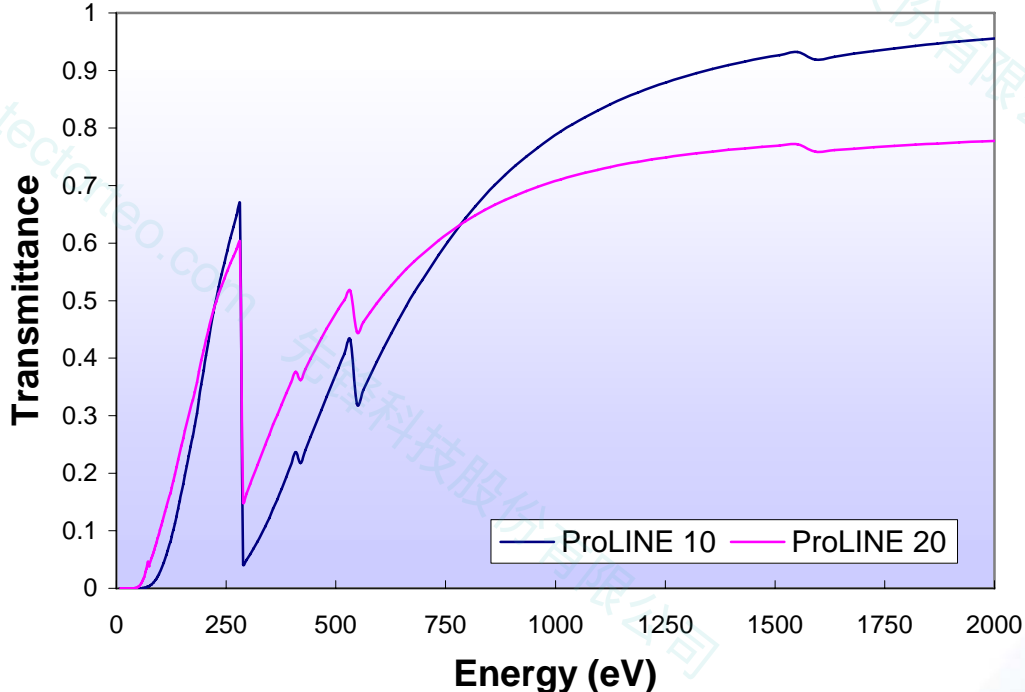
Please contact MOXTEK for price and delivery information. ProLINE Series 20 windows can be purchased from spectrometer suppliers or directly through MOXTEK. Non-standard sizes can be customized.

## Mounting

Care should be taken to not flex the mount too much or damage to the window may occur.

ProLINE Series 20 windows may be bonded to metal mounts. Mounts may be supplied or machined by MOXTEK. The preferred mount material is stainless steel 316 or other hard alloy. Aluminum can be used as an alternative. A drawing should be supplied that illustrates the orientation of the window frame with respect to the metal mount.

## ProLINE Series Transmission



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