

NEW PRODUCTS & CAPABILITIES FOR 2010

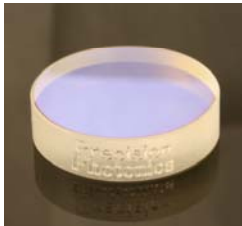


Custom and Standard Waveplates for UV to MIR

PPC stocks 1" and 4" diameter compound zero order waveplate wafers for 1064 nm which can be sold as-is or diced to almost any size or shape in just a day or two. We also manufacture custom multiple order, true zero order and compound zero order crystal quartz and sapphire waveplates in sizes from 1x1 mm² to 100 mm for applications from 266 nm to 3 μm. All PPC waveplates are epoxy-free and coated with our high energy, low loss IBS anti-reflection coatings.

Custom IBS Coatings for the Mid-IR (3-5 μm)

PPC has successfully developed robust, broadband anti-reflection (BBAR) coatings for the 3-5 μm spectral range capable of extremely high temperature operation and survivability; recent results have demonstrated operational survivability to 1000° C. Other examples of custom MWIR IBS coatings include narrowband AR coatings at 3.4μm and short-wave pass dichroic mirrors with high reflectance at 3.1 μm and high transmittance at 1.5μm.



High-energy Anti-reflection (AR) Coatings with R < 0.05%

PPC offers custom high-energy, low-loss IBS coatings from 266 nm to 5000 nm for OEM and prototype applications. In addition to low-reflectance and high-efficiency, low scatter and absorption losses of < 2 ppm result in high damage thresholds of greater than 20 J/cm² at 1064nm and almost 4 J/cm² at 266nm. Single and dual wavelength AR coatings are available on PPC-provided substrates or customer supplied crystals and materials ranging from fused silica to crystal quartz to silicon.

Expanded materials available for CADB® epoxy-free bonding

PPC's patent-pending Chemically Activated Direct Bonding™ (CADB®) technology is an exceptionally durable process that results in epoxy-free optical paths that are ideal for monolithic optical assemblies and composite laser assemblies. CADB can be used with our robust ion-beam-sputtered dielectric thin film coatings to produce polarizing beamsplitters and other optical devices with internal or external coating requirements. Materials that are now offered for optical bonding include silicon, ZnSe and CVD diamond as well as previously available materials such as fused silica, sapphire and doped and undoped YAG.

