Gires-Tournois Mirrors

- Material: Fused Silica or N-BK7
- Custom reflectivity and GDD
- $R_s$ & $R_p$ $>$ 99.8% @ design wavelength
- GDD from -250 to -600 fs$^2$
- High damage threshold

Below lists two standard dielectric broadband coatings offered by CASTECH. Other coatings can be designed upon your request.

<table>
<thead>
<tr>
<th>Coating Code</th>
<th>Center Wavelength (nm)</th>
<th>Angle of Incidence</th>
<th>Reflectivity per Surface</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT1</td>
<td>1020-1060</td>
<td>0°</td>
<td>$R_s$ &amp; $R_p$ $&gt;$ 99.8%</td>
</tr>
<tr>
<td>GT2</td>
<td>780-820</td>
<td>0°</td>
<td>$R_s$ &amp; $R_p$ $&gt;$ 99.8%</td>
</tr>
</tbody>
</table>

**Metrology**

The group delay dispersion (GDD) measurement system characterizes the GDD properties of reflective and transmissive optics that are used with femtosecond pulsed lasers. Ultrafast pulses broaden as they propagate through an optical system. Short pulse width can be recovered by knowing the GDD induced by each optics and compensating for the distortions appropriately. For highly accurate and reliable results, the GDD measurement uses time-domain white light interferometer to measure the GDD. This dispersion measurement system includes software that guides the user through beam alignment, automatically finds the zero time delay position, and rapidly and accurately measures the dispersion. Every coating batch is tested in house by GDD measurement system to confirm your high-performance values.

GDD Measurement System
- GDD resolution: ± 5 fs$^2$
- $R_s$ & $R_p$ $>$ 99.8% @ (1020-1060)nm
- Angle of Incidence: 0°
CASTECH was founded in 1990 by FIRSM (Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, a world famous institute on material research).

- A public company (2008, Shenzhen, China, Stock Code: 002222)
- Sales Revenue US$80 Millions
- More than 1000 Employees
- 40,000 M² Facility
- Sales 50% China and 50% International

CASTECH is a pioneer and global leader in nonlinear optical crystals, laser crystals, precision optics and laser components for laser, optical communication, biomedical and LiDAR applications. Based on more than 30 years of worldwide known expertise and unique technologies of crystal growing, precision polishing and high LIDT coating, CASTECH has built a wide selection of high performance precision optics category and solutions including Aspherical/Spherical Lenses, Flats, Prisms, Waveplates, Gratings, polarization components, as well as featured products for most commanding applications like ultrafast lasers, to assist with our customers from prototype to mass production stage.