1. General

Pleiger Laseroptik’s precision mirrors are used in resonators, deflection units, and for beam bending. Our product range includes flat mirrors and spherical optics of silicon, copper, silicon carbide, and fused silica. Combined with our gold-based high-power coatings, we offer precisely the suitable optics for any application with a wavelength of 10.6 μm. We also offer scanner mirrors for laser marking, plane mirrors for laser cutting, and bending mirrors for medical instruments.

2. Materials

CO2 laser mirrors may be made of
- Silicon
- OFHC-Copper
- Aluminium (AlMgSi1)
- Beryllium
- Silicon Carbide

3. Surfaces

- Plano
- Spherical
- Aspherical
- Toroidal

4. Coatings

- Protected Gold
  Broadband coating for low power applications only.
- Molybdenum
  Very hard coating for CO2 laser welding
- PICO HR
  High power coating for laser marking, cutting, drilling
- PICO HR DB
  High power coating with extended reflection for alignment lasers
- PICO HR Resonator
  High power coating optimized for CO2 laser resonators. High UV stability.

<table>
<thead>
<tr>
<th></th>
<th>R @ 10,6 μm AOI 45° s-pol</th>
<th>R @ 10,6 μm AOI 45° p-pol</th>
<th>R @ 10,6 μm AOI 0°</th>
<th>Phase Shift AOI 45°</th>
<th>R @ 633 nm AOI 45°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protected Gold</td>
<td>99,1 %</td>
<td>98,4 %</td>
<td>99,0 %</td>
<td>&lt; 2°</td>
<td>&gt; 90%</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>98,4 %</td>
<td>96,6 %</td>
<td>97,5 %</td>
<td>&lt; 2°</td>
<td>&gt; 50%</td>
</tr>
<tr>
<td>PICO HR</td>
<td>99,9 %</td>
<td>99,8 %</td>
<td>99,8 %</td>
<td>0 +/- 3°</td>
<td>&gt; 45%</td>
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<tr>
<td>PICO HR DB</td>
<td>99,8 %</td>
<td>99,6 %</td>
<td>99,7 %</td>
<td>0 +/- 5%</td>
<td>&gt; 75%</td>
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<tr>
<td>PICO HR Resonator</td>
<td>Not designed for AOI 45°</td>
<td>Not designed for AOI 45°</td>
<td>99,9 %</td>
<td>Not designed for AOI 45°</td>
<td>&gt; 45%</td>
</tr>
</tbody>
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