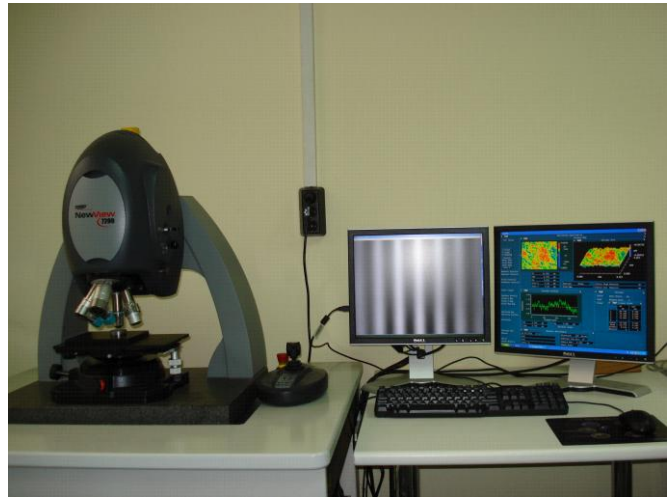


# IR Optics

## Technical Specification



Item type	Technical specification
<p><b>Spherical and aspherical surfaces:</b></p>	<ul style="list-style-type: none"> <li>• Diameter  <math>\text{\O}10\text{mm} - \text{\O}180\text{mm}</math> (spherical)  <math>\text{\O}20\text{mm} - \text{\O}180\text{mm}</math> (aspherical)</li> <li>• Surface form  <math>\Delta N - \text{to } 0,2</math> (spherical) and to 2 (aspherical)</li> <li>• Roughness                      (RMS) - <math>&lt;1\text{nm}</math> (for ZnS items only <math>&lt;3\text{nm}</math>)</li> <li>• Decentricity - <math>&lt;30''</math></li> <li>• Surface quality  <math>\text{\O}15\text{mm} / 20-10</math>  <math>\text{\O}15\text{mm to } \text{\O}60\text{mm} / 40-20</math>  <math>&gt; \text{\O}60\text{mm} / 60</math>                      for ZnS items only / 80-50</li> </ul>

Item type	Technical specification
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<p><b>Aspheric item made with diamond turning</b></p>	<ul style="list-style-type: none"> <li>• <b>Diameter</b> Ø10mm to Ø200mm</li> <li>• <b>Surface form</b> ΔN – 0,3</li> <li>• <b>Roughness (RMS)</b> &lt;3nm</li> <li>• <b>Decentricity</b> &lt;30”</li> <li>• <b>Surface quality</b> up to Ø20mm / 20-10 &gt; Ø20mm / 40-20</li> </ul> <p><b>Diffraction surface processing capability</b></p>
<p><b>Plane item (mirrors Si, Ge):</b></p>	<ul style="list-style-type: none"> <li>• <b>Diameter</b> Ø10mm - Ø200mm</li> <li>• <b>Parallelism</b> up to 3’</li> <li>• <b>Surface form</b> ΔN – up to 0,2</li> <li>• <b>Roughness (RMS)</b> &lt;1nm (0,7 to 0,9nm) For ZnS only &lt;3nm</li> <li>• <b>Surface form</b> up to Ø30mm / 20-10 Ø30mm -Ø60mm / 40-20 &gt; Ø60mm / 60-40 For ZnS only / 80-50</li> </ul>
<p><b>Substrates (CaF2, MgF2):</b></p>	<ul style="list-style-type: none"> <li>• <b>Diameter</b> Ø10mm - Ø50mm</li> <li>• <b>Parallelism</b> up to 5”</li> <li>• <b>Surface form</b> ΔN – to 0,2</li> <li>• <b>Roughness (RMS)</b> &lt;1nm (0,5 to 0,7nm) For ZnS only &lt;3nm</li> <li>• <b>Surface form – 20-10</b></li> </ul>