

# TiO<sub>2</sub> for Research and Development



# CrystTec

KRISTALLTECHNOLOGIE

<b>Growth Method:</b>	Verneuil
<b>Crystal Structure:</b>	tetragonal
<b>Density (25°C):</b>	4.26 g/cm <sup>3</sup>
<b>Lattice Constant:</b>	a = b = 0.459 nm c = c: 0.296 nm
<b>Colour:</b>	pale yellow (fully oxidized)

<b>Physical Properties:</b>	
<b>Melting Point:</b>	2100 K
<b>Hardness:</b>	6.5 (Mohs)
<b>Thermal Conductivity:</b>	12,6 W/m K    C 8,8 W/m K ⊥ C
<b>Thermal Expansion:</b>	9,2 x 10 <sup>-6</sup> K <sup>-1</sup>    C 9,2 x 10 <sup>-6</sup> K <sup>-1</sup> ⊥ C
<b>Dielectric Constant:</b>	200
<b>Refractive Index</b>	n <sub>a</sub> = 2.84 n <sub>o</sub> = 2.55
<b>Transmission Range</b>	0.42 - 5 μm

<b>Orientation:</b>	(100), (001), (110), (111)
<b>Standard Size:</b>	10 x 10 mm <sup>2</sup> , 10 x 5 mm <sup>2</sup> , 5 x 5 mm <sup>2</sup>
<b>Standard Thickness:</b>	0.5 mm, 1 mm
<b>Surface:</b>	one- or both side epipolished

► For further information please feel free to ask.