

SrTiO₃ – Strontium Titanate

MATERIAL PROPERTIES

Structure formula:	SrTiO ₃
State:	monocrystalline
Crystal structure:	cubic
Lattice parameter:	3.905 Å
Phase transition:	tetragonal <110K
Density:	5.12 g/cm ³
Melting point:	2080°C
Coefficient of expansion:	11.1 * 10 ⁻⁶ /°C

SUBSTRATE PROPERTIES

Production method:	Verneuil grown (without twins)
Orientation:	(100)
Orientation accuracy:	± 0.5°
Standard size:	10mm x 10mm x thickness 1mm or 0.5mm
Tolerance of length:	± 0.10mm (typical better ± 0.05mm)
Tolerance of thickness:	± 0.05mm
Parallelness:	± 0.02mm
Polishing:	standard: one side
Flatness:	±/4
Roughness of surface:	Rmax ± 3nm (average Ra=1nm)
Scratches:	none
Surface quality:	with light microscope without defects

