

DATA SHEET

Z CUT QUARTZ

Density, g/cm ³	2.65
Melting point, °C	1467
Thermal conductivity, W/(m x K) (T = 25°C)	10.7 (parallel to axis Z) 6.2 (perpendicular to axis Z)
Thermal coefficient of linear expansion at temperature range 0-25°C, °C ⁻¹	7.1 × 10 ⁻⁶ (parallel to axis Z) 13.2 × 10 ⁻⁶ (perpendicular to axis Z)
Hardness (Mohs)	7
Specific heat capacity, J/(kg x K) (T = 25°C)	710
Dielectric constant at 30 MHz	4.34 (parallel to axis Z) 4.27 (perpendicular to axis Z)
Young's modulus (E), GPa	97.2 (parallel to axis Z) 76.5 (perpendicular to axis Z)
Shear modulus (G), GPa	31.14
Bulk modulus (K), GPa	36.4
Chemical stability	insoluble in water
Elastic coefficients	C11=87 C12=7 C44=58 C13=13 C14=18 C33=106

