

Material Properties	Unit	ULE
Density	g/cm <sup>3</sup>	2.21
Poisson's Ratio (ν)	–	0.17
Shear Modulus (G)	GPa	29
Bulk Modulus (K)	GPa	34.1
Elastic Modulus (E)	GPa	67.6
Specific Stiffness (E/ρ)	m	3.12 x 10 <sup>6</sup>
Ultimate Tensile Stress (MOR)	MPa	49.8
Knoop Hardness, 200g load	kg/mm <sup>2</sup>	460
Thermal Properties	Unit	ULE
Strain Point	°C	890
Annealing Point	°C	1000
Softening Point (estimated)	°C	1490
Mean Specific Heat (C <sub>p</sub> )	J/(kg *°C)	767
Thermal Diffusivity (D)	cm <sup>2</sup> /s	0.0079
Thermal Conductivity (K)	w/(m *°C)	1.31
D.C. Volume Resistivity, 200°C 100Hz (R)	ohm * cm	10 <sup>11.6</sup>
Mean Linear Coefficient of Thermal Expansion 5°C to 35°C(α)	10 <sup>-9</sup> /K	0 ± 30

Optical Properties	Unit	ULE
Stress Optical Coefficient	(nm/cm)/(kg/cm <sup>2</sup> )	4.15
Abbé Number ( $v_d$ )	—	53.1
dn/dt 20-40°C	10 <sup>-6</sup> /°C	10.68
dn/dt 40-60°C	10 <sup>-6</sup> /°C	11.24
Refractive index (nominal CTE Material)	$n_F$ (486 nm)	1.4892
	$n_D$ (589 nm)	1.4828
	$n_C$ (656 nm)	1.4801

## Chemical Durability

Excellent resistance to weathering

Exhibits virtually no surface clouding or electrical surface leakage when subjected to attack by water, sulfur dioxide, and other atmospheric gases.

High resistance to attack by nearly all chemical agents

Solution at 95°C	Test Duration	Weight Loss mg/cm <sup>2</sup>
5% HCl	24h	< 0.01
5% NaOH	6h	0.9
0.02N Na <sub>2</sub> CO <sub>3</sub>	6h	0.02
5% H <sub>2</sub> SO <sub>4</sub>	24h	< 0.01
H <sub>2</sub> O	24h	< 0.01

*Note: This value is for reference only and may vary slightly depending on the batch conditions.*

Jundro Ceramics is a global material manufacturer that offers a wide range of advanced materials

We produce high-quality and complex products, providing significantly enhanced performance for customers engineering.

Our comprehensive service range includes material selection, precision machining, surface treatment, and quality testing to ensure that each product can perform its best practical applications.

# DONGGUAN JUNDRO CERAMICS TECHNOLOGY CO.LTD

Add: Room 306, Gate B, Unit 1, Block 2 South, No. 1 Yile Road, Songshan Lake, Dongguan City, Guangdong Province, China(523808)