

NANOCERAM™

Shattering the Competition



Chem Tempered Glass



NANOCERAM™

Introducing NANOCERAM™, a new ultra-durable glass ceramic from OHARA

Advantages

- 3x the impact resistance of glass
- Outstanding scratch resistance
- Moldable for curved shapes
- 40% lighter than sapphire
- Excellent chemical resistance

Applications

- Protective cover glass
- Mobile devices
- Smart watches/wearables
- Military applications
- Surgical devices/scopes



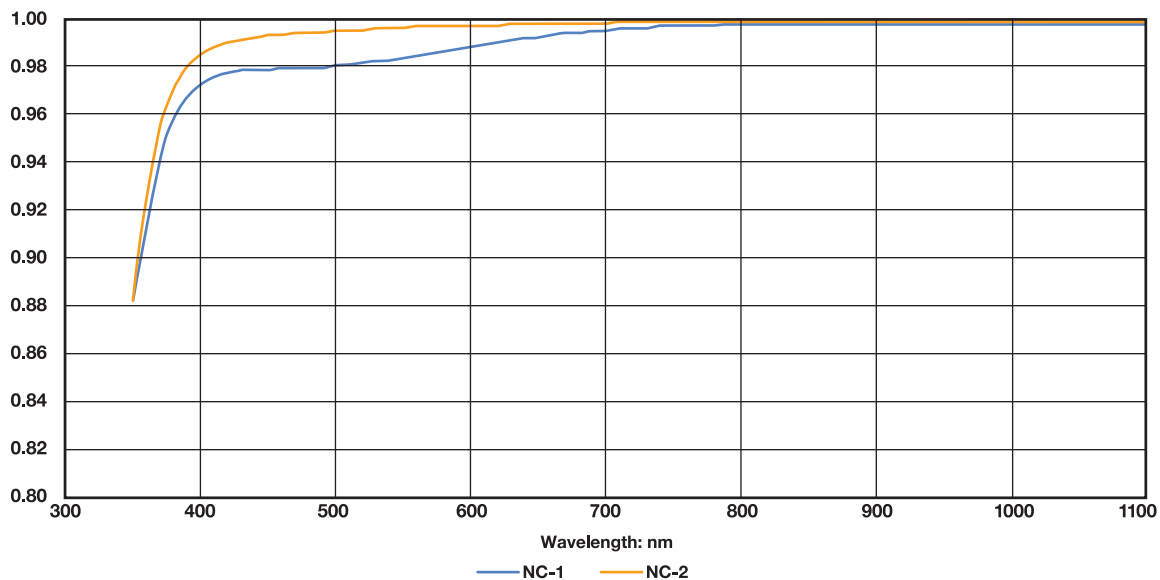
For more information please visit www.oharacorp.com or call 949-858-5700 (CA) or 908-218-0100 (NJ)

NANOCERAM™

	NANOCERAM™ (NC-1)	NANOCERAM™ (NC-2)
Specific Gravity	2.54	2.54
Young's Modulus (GPa)	86	86
Poisson ratio	0.23	0.23
Thermal Conductivity (W/m•K)	1.154	1.154
Refractive Index (nd)	1.539	1.539
Abbe Number (vd)	51.5	52.3
Photoelastic Constant (β) (nm/cm/MPa)	30.6	30.6
Expansion Coefficients $\alpha \times 10^{-7}/^{\circ}\text{C}$ (0~300°C)	91	91
Volume Resistivity ($\Omega \cdot \text{cm}$)	5.9×10^{13}	5.9×10^{13}
Water Resistance RW(p) (Powder Method)	1	1
Acid Resistance RA(p) (Powder Method)	1	1
Weathering Resistance W(s) (Surface Method)	1	1
Vickers Hardness HV (200gf)	870	850
Breaking Stress 4P (MPa) A-ve 5.5"0.55t	1150	1150
Ball Drop (132g) 5.5"0.55t (cm)	90	90
Depth of Compression Layer Capability (μm)	≥ 40	≥ 40
Compressive Stress Capability (MPa)	≥ 950	≥ 950

Above values are based on polished substrates after chem-tempering

Internal Transmittance (1mmt)



Please note there are two versions of NANOCERAM that we refer to as NC-1 and NC-2.
 NC-1 is slightly stronger and harder.
 NC-2 has improved internal transmittance in the visible range of the spectrum.