



SPI Supplies
206 Garfield Avenue,
West Chester, PA 19380, USA

TECHNICAL CHARACTERISTICS

Cargille Optical Gel Code 0607

Composition	Aliphatic Hydrocarbons & Gelling Agents
Appearance	Colorless to Slightly Yellow Gel
Odor	None
Color Stability	In sun: may slightly yellow after 9 years
Index Change Rate by Evaporation	Very low: 0.0000 expected: exposed surface area to volume ratio of 0.2 sq. cm / cc @ 25 °C for 32 days
Freezing Point °C	-67
Boiling Point °C @ 760mm Hg	> 416
Flash Point °C COC	> 245
Density g/cc @ 25 °C	0.848
Density Temp. Coef. g/cc °C	-0.0006
Coef. of Therm. Exp. cc/cc/ °C	0.0007
Viscosity @ 25 °C	Soft Gel
Oil Separation 100 °C for 24 Hours, % by Weight	< 0.05
Weight Loss 100 °C for 24 Hours, %	< 0.05
Water Immersion	Gel disperses
Partly Soluble:	Carbon Tetrachloride, Ethyl Ether, Freon TF, Heptane, Methylene Chloride, Naphtha, Toluene, Turpentine, Xylene
Insoluble:	Acetone, Ethanol, Water
Compatibility:	10 month immersion @ 25 °C: Acrylic, Cellulose Acetate, Epoxy, Mylar, Nylon, Polycarbonate, Polyester, Polyethylene, Polypropylene, Polystyrene, Polyurethane, Polyvinyl Chloride, Phenolic, Teflon, Silicone, and Fluorosilicone Rubber; Neoprene Rubber, Aluminum, Copper, Brass, and Steel; (tests done on one example of each)
Toxicity:	Low (request MSDS)
Incompatible:	Latex Rubber, Tygon (types: S-50-HL, R-3630. B-44-3)
Cauchy Equation:	Refractive index as a function of wavelength at 25 °C
	$W = \text{Wavelength in angstroms (A)}$ $n(W) = 1.44503 + (440960) / W^2 + (-2.85878E+11) / W^4$

Source or Spectral Line	Wavelength (angstroms)	Refractive Index 25 °C	% Transmittance 25 °C		
			1 mm	1cm	10cm
Near UV cut off	3200	1.485	83	15	0
i (Hg)	3650	1.477	98	81	12
h (Hg)	4047	1.471	99	92	42
F? (Cd)	4800	1.464	100	98	78
F (H)	4861	1.463	100	98	79
e (Hg)	5461	1.459	100	99	86
D (Na) D1, D2 mean	5893	1.457	100	99	90
He laser	6328	1.456	100	99	92
C? (Cd)	6439	1.456	100	99	90
C (H)	6563	1.455	100	99	92
Ruby laser	6943	1.454	100	100	98
GaAs laser	8400	1.451	100	100	98
Nd: YAG laser	10648	1.449	100	95	61
Diode	13000	1.448	99	91	39
Diode	15500	1.447	99	80	11
nF - nC	=	0.0008			
Abbe vD: (nD - 1) / (nF - nC)	=	57			
Temp. coef dnD / dt 20 - 25 °C	=	-0.00035			