



Cargille Laboratories
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Typical Characteristics

Refractive Index Liquid
Refractive Index

Series AA

1.45200 at 5893 Å and 25 °C

Composition	Siloxane and Aliphatic / Alicyclic Hydrocarbons
Appearance	Colorless Liquid
Odor	None
Color Stability	In sun: no visible change after 10 years
Index Change Rate by Evaporation	Very Low : 0.00000 to +0.00001 expected after 32 days with exposed surface area to volume ratio of 0.2 cm ² /cc @ 25 °C

Pour Point	< -7 °C
Boiling Point	> 200 °C (760 mm Hg)
Flash Point	> 138 °C (COC)
Density	0.838 g / cc at 25 °C
Density Temp Coef	-0.0007 g / cc / °C
Coef of Thermal Expansion	0.0008 cc / cc / °C
Thermal Conductivity	0.0003 cal / sec / cm ² / °C - 1 cm thickness
Viscosity	16 cSt at 25 °C
Surface Tension	24 dynes/cm at 25 °C

Soluble	Carbon Tetrachloride, Ethyl Ether, Heptane, Methylene Chloride, Naphtha, Toluene, Turpentine, Xylene
Partly Soluble	Acetone
Insoluble	Ethanol, Water

Compatible	1 Month Immersion at 25 °C : Acrylic, Cellulose Acetate, Epoxy, Mylar, Nylon, Polycarbonate, Polyester, Polyethylene, Polypropylene, Polystyrene, Polyurethane, Polyvinyl Chloride, Phenolic, Teflon, Neoprene and Fluorosilicone (Silastic 730 RTV) Rubbers ; Tygon F-4040-A, Tygothane, Aluminum, Brass, Copper, Steel
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Incompatible	Latex, Silicone (Sylgard 184 and 3140 RTV) Rubber, Tygon S-50-HL, R-3603, B-44-3
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Toxicity	Low (Request MSDS)
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Cauchy Coefficients A B C
1.4401714 402693 2.807780E+11

Cauchy Formula $A + B / \lambda^2 + C / \lambda^4$ (λ = Wavelength in Angstroms)

Wavelength (in Å)	Refractive Index	Transmittance			
		0.1 mm	1 mm	1 cm	10 cm
2250	1.53	94	54	0	0
2400	1.52	99	88	29	0
2480	1.51	99	93	50	0
2700	1.501	99	90	35	0
2900	1.492	100	98	83	16
3080	1.486	100	98	84	18
3370	1.478	100	100	98	83
3650	1.4720	100	100	99	87
4047	1.4658	100	100	99	87
4861	1.4577	100	100	99	94
5461	1.4540	100	100	100	95
5893	1.4520	100	100	100	95
6328	1.4504	100	100	100	95
6563	1.4497	100	100	100	95
6943	1.4486	100	100	100	99
8400	1.4459	100	100	100	96
10648	1.4437	100	99	95	59
13000	1.443	100	99	89	30
15500	1.442	100	98	79	10
25000	-	-	-	-	-
37000	-	-	-	-	-

($n_F - n_C$) 0.0080

Abbe v_D 56.2

Temp. Coefficient -0.000390 dn_D/dt (15 - 35 ° C)