



Cargille Laboratories
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Catalog # 1806

Typical Characteristics

Refractive Index Liquid **Series AA**
Refractive Index **1.43800** at 589.3 nm and 25 ° C

Composition Siloxane and Aliphatic / Alicyclic Hydrocarbons
Appearance Colorless Liquid
Odor None
Color Stability In Direct Sun: no visible change after 10 years
Index Change Rate Very Low : 0.00000 to +0.00001
by Evaporation expected after 32 days with exposed surface area to volume ratio of 0.2 cm²/cc @ 25 °C

Index at 20°C 1.43998
Pour Point < -7 °C
Boiling Point > 200 °C (760 mm Hg)
Flash Point > 138 °C (COC)
Brix Value (Per ICUMSA) **59.1 at 20°C**
Density 0.863 g / cc at 25 °C
Density Temp Coef -0.0008 g / cc / °C
Coef of Thermal Expansion 0.0009 cc / cc / °C
Thermal Conductivity 0.0003 cal / sec / cm² / °C - 1 cm thickness

Viscosity 14 cSt at 25 °C 12 cP at 25 °C
Surface Tension 21 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

Incompatible Latex, Silicone (Sylgard 184 and 3140 RTV) Rubber, Tygon S-50-HL, R-3603, B-44-3



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Cauchy Coefficients
 A 1.426090E+00 B 4.1115E+03 C 8.5370883E+06

Cauchy Equation at 25°C $A + B / \lambda^2 + C / \lambda^4$ (λ = Wavelength in nm)

Wavelength (nm)	Refractive Index	Transmittance			
		0.1 mm	1 mm	1 cm	10 cm
225.0	1.51	95	60	1	0
240.0	1.50	99	89	32	0
250.0	1.49	99	93	48	0
270.0	1.48	99	91	40	0
290.0	1.48	100	98	82	13
308.0	1.47	100	99	86	23
355.0	1.459	100	100	98	85
365.0	1.457	100	100	99	90
406.0	1.4513	100	100	99	90
473.0	1.4446	100	100	100	95
532.0	1.4407	100	100	100	96
589.3	1.4380	100	100	100	96
632.8	1.4364	100	100	100	96
656.3	1.4357	100	100	100	96
790.0	1.4327	100	100	100	99
828.0	1.4321	100	100	99	94
981.0	1.430	100	100	96	65
1310.0	1.428	100	99	91	37
1550.0	1.428	100	97	74	5
2500.0	-	-	-	-	-
3700.0	-	-	-	-	-

($n_F - n_C$) 0.0080

Abbe v_D 55.0

Temp. Coefficient -0.000396 dn_D/dt (15 - 35 °C)

Shelf Life: 5 Years from Date of Manufacture for Unopened Bottles, Half the Remaining Time after Opening