

BecFluid®

Dielectric cooling and insulating fluid

Thermal properties

Tabulated below are the thermal properties of BecFluid® 9902, over the temperature range applicable to the majority of transformers. Values have either been taken directly from published data or have been calculated/extrapolated from such data.

Temperature, °C	-30	-20	-10	0	10	20	30
Specific Heat, J/kg K	1710	1740	1759	1780	1791	1816	1830
Expansion Coefficient, /°C	0.00073	0.00074	0.00074	0.00075	0.00075	0.00076	0.00076
Thermal Conductivity, W/m K	0.139	0.139	0.139	0.139	0.139	0.139	0.139
Density, kg/m ³	1011	1004	997	989	982	974	967
Kinematic Viscosity, mm ² /s	3180	1040	412	197	105	61	38
Prandtl Number	39560	13072	5197	2495	1329	770	481

Temperature, °C	40	50	60	70	80	90	100
Specific Heat, J/kg K	1858	1890	1923	1959	1998	2039	2083
Expansion Coefficient, /°C	0.00076	0.00077	0.00077	0.00078	0.00078	0.00079	0.00080
Thermal Conductivity, W/m K	0.139	0.139	0.139	0.138	0.138	0.138	0.138
Density, kg/m ³	960	952	945	938	930	923	916
Kinematic Viscosity, mm ² /s	25	18	13	10	8	6	5
Prandtl Number	321	226	167	128	101	82	68