



CALTRAN™ C50 Insulating Oils

CALTRAN C50 insulating oils are developed using high quality base stocks to deliver a product that provides excellent performance in electrical service. CALTRAN C50 insulating oils are designed and manufactured to provide cooling and insulating properties as well as promote resistance to oxidation and sludge formation.

CALTRAN C50 insulating oils are recommended for use in electrical applications subject to extremely cold conditions and forced oil cooling systems. Potential applications include load transformers, tap changers, switches, and circuit breakers required to operate at ambient temperatures below -25°C.

CALTRAN C50 insulating oils meet or exceed Canadian Standards Association C50-14 specifications for Class A and Class B, Type I and Type II insulating oils.

PRODUCTS

C50A & C50B UNINHIBITED (TYPE I)	C50A & C50 B INHIBITED (TYPE II)	C50A INHIBITED (TYPE II) NEGATIVE GASSING
Caltran 60-08 C50A	Caltran N60-30 C50A	Caltran N60-30 C50A
Caltran 60-08 C50B	Caltran 60-30 C50B	

FEATURES

- Excellent Low Temperature Fluidity
- Outstanding Corrosion Control
- Exceptional Insulating Properties
- Superior Oxidation Stability

BENEFITS

- Improves circulation and heat transfer for operation at low temperatures in remote locations
- Ability to withstand high levels of electrical field strength while assisting in the prevention of corona discharge or arcing
- Highly refined to remove corrosive sulfur compounds which prevents corrosion of copper components and formation of copper sulfides
- Oxidatively stable for long service life

PACKAGING & SHIPPING

Available in:

- 55 Gallon Steel Drums
- 275 Gallon Poly Totes
- Tank Truck
- Rail Car

HANDLING & SAFETY

This product should be stored in sealed containers at ambient temperature.

Read and understand the Safety Data Sheet (SDS) before using this product.

TECHNICAL ASSISTANCE

For product or technical questions contact your Sales Representative or Calumet Product Support.

Product Support:
800-437-3188
technical@clmt.com

www.calumetspecialty.com

CALTRAN™ C50 Insulating Oils

PHYSICAL PROPERTIES		METHOD	60-08 C50A	60-08 C50B	N60-30 C50A	60-30 C50B
Class			Class A	Class B	Class A	Class B
Type			Type I	Type I	Type II	Type II
Flash Point, COC (°C)		ASTM D92	151	153	152	153
Viscosity at 40°C (cSt)		ASTM D7279	7.67	8.57	7.76	8.67
Viscosity at 0°C (cSt)		ASTM D445	42.81	50.94	44.60	53.20
Viscosity at -40°C (cSt)		ASTM D445	1,757	2,000	1,822	2,000
Pour Point (°C)		ASTM D97	-67	-65	-64	-56
Color, ASTM		ASTM D1500	L0.5	L0.5	L0.5	L0.5
Dielectric Breakdown at 60 Hz, Disc (kV)		ASTM D877	38	39	39	40
Dielectric Breakdown, VDE at 2 mm gap (kV)		ASTM D1816	46	45	45	60
Dielectric Breakdown Impulse (kV)		ASTM D3300	288	397	397	300
Gassing Tendency (μL/min)		ASTM D2300	25	12	-9	15
Interfacial Tension (dyne/cm)		ASTM D971	48.3	47.3	47.9	48.0
Density at 15°C (kg/m³)		ASTM D4052	0.8768	0.8781	0.8757	0.8762
Power Factor at 25°C (%)		ASTM D924	0.003	0.004	0.001	0.003
Power Factor at 100°C (%)		ASTM D924	0.04	0.04	0.03	0.07
Neutralization Number (mg KOH/g)		ASTM D974	0.010	0.009	0.010	0.003
Strong Acids (mg KOH/g)		ASTM D974	NIL	NIL	NIL	NIL
Corrosive Sulfur		ASTM D1275B	Non-Corrosive	Non-Corrosive	Non-Corrosive	Non-Corrosive
Potentially Corrosive Sulfur		IEC 62535	Non-Corrosive	Non-Corrosive	Non-Corrosive	Non-Corrosive
DBDS Content (ppm)		IEC 62697-1	< 5	< 5	< 5	< 5
Oxidation Inhibitor Content (%)		ASTM D2668	0.06	0.06	0.27	0.26
Oxidation Stability		ASTM D2440				
72 Hours at 110°C	Sludge (%)		0.01	0.01	0.01	0.01
	Acid Number (mg KOH/g)		0.01	0.01	0.01	0.01
164 Hours at 110°C	Sludge (%)		0.01	0.05	0.01	0.03
	Acid Number (mg KOH/g)		0.02	0.01	0.01	0.03
Oxidation Stability, RPVOT (minutes)		ASTM D2112			288	265
Water Content (ppm)		ASTM D1533	13	12	10	15
PCB Content (ppm)		ASTM D4059	< 1	< 1	< 1	< 1
2-Furaldehyde (μg/L)		ASTM D5837	6	6	5	5