

# Technical Data Sheet

## LubTroil® Type II

### GENERAL DESCRIPTION

LubTroil® Type II is an inhibited highly refined mineral dielectric/transformer oil manufactured from a proven and improved technology platform to create a product that is stable at high temperatures and has excellent electrical insulating properties, offering outstanding oxidation stability and exceptional dielectric strength. LubTroil® Type II is formulated to deliver solid resistance to oil degradation that provides good oxidation stability for a longer transformer life with less maintenance.

### APPLICATION

LubTroil® Type II is used in oil-filled transformers, some types of high voltage capacitors, fluorescent lamp ballasts, and some types of high voltage switches and circuit breakers. Its functions are to insulate, suppress corona and arcing, and to serve as a coolant.

### TYPICAL PROPERTIES

#### LUBTROIL® TYPE II

PROPERTIES	ASTM METHOD	MIN.	MAX.	TYPICAL VALUES
SPECIFIC GRAVITY @60 °F	D1298	--	0.910	0.889
VISUAL APPEARANCE	D1524	--	--	Bright & Clear
COLOR	D1500	--	0.5	<0.5
FLASH POINT, °C	D92	145	--	152
POUR POINT, °C	D97	--	-40	-55
INTERFACIAL TENSION @ 25 °C, DYNES/CM	D971	40	--	49.7
VISCOSITY @ 40 °C	D445	--	12.0	9.57
VISCOSITY @ 100 °C	D445	--	3.0	2.33

Note: Values shown here reflect approximate specification limits and typical values.

<b>ELECTRICAL</b>				
<b>PROPERTIES</b>	<b>ASTM METHOD</b>	<b>MIN.</b>	<b>MAX.</b>	<b>TYPICAL</b>
POWER FACTOR @ 60HZ, 25 °C	D924	--	0.05	<0.02
POWER FACTOR @ 60HZ, 100 °C	D924	--	0.30	<0.05
DIELECTRIC BREAKDOWN VOLTAGE @60 HZ, DISK ELECTRODES, KV	D877	30	--	53
DIELECTRIC BREAKDOWN VOLTAGE @60HZ, VDE ELECTRODE, KV	D1816	28	--	40
IMPULSE BREAKDOWN VOLTAGE, KV	D3300	145	--	230
GASSING TENDENCY, UL/MIN	D2300	--	+30	+6

<b>CHEMICAL</b>				
<b>PROPERTIES</b>	<b>ASTM METHOD</b>	<b>MIN.</b>	<b>MAX.</b>	<b>TYPICAL</b>
OXIDATION INHIBITOR, % MASS	D2668	--	0.3	0.25
WATER, PPM	D1533/D630 4	--	--	14
NEUTRALIZATION NUMBER, MG KOH/G	D974	--	0.03	<0.01
CORROSIVE SULFUR	D1275B	--	--	Not Detectable
PCB CONTENT, PPM	D4059	--	--	<1

<b>OXIDATION STABILITY</b>				
<b>PROPERTIES</b>	<b>ASTM METHOD</b>	<b>MIN.</b>	<b>MAX.</b>	<b>TYPICAL</b>
OXIDATION STABILITY @ 72 HOURS	D2440			
% SLUDGE, BY MASS		--	0.15	0.01
NEUTRALIZATION NO. BY MG KOH/G		--	--	<0.01
OXIDATION STABILITY @ 164 HOURS	D2440			
% SLUDGE, BY MASS		--	0.2	0.01
NEUTRALIZATION NO. BY MG KOH/G		--	0.4	<0.01
ROTATING BOMB, MINUTES	D2112	195	--	315

Note: Values shown here reflect approximate specification limits and typical values.