

## DURALIFE® TRANSFORMER OIL TYPE II

**Duralife® Transformer oil** Type II is a highly refined naphthenic mineral oil, provides good oxidation stability and high dielectric strength, excellent conductive heat transfer properties for a longer transformer life with less maintenance and compatible with construction materials used in electrical systems. It was developed to deliver solid resistance to oil degradation. It is an inhibited oil and fulfils the requirements for ASTM D 3487 Type II oil.

**APPLICATIONS:**

**Duralife® Transformer oil** is recommended for used in power and distribution transformers , rectifiers, circuit breakers, switchgears and other electrical equipment.

**BENEFITS:**

- Minimizes energy losses through its excellent electrical insulation and dielectric properties.
- Maximizes life of switch contacts by rapidly quenching arcs.
- Prevents arcing between electrodes.
- Provides effective cooling of transformer coils.
- Good heat transfer.

**TYPICAL CHARACTERISTICS**

Characteristic	Test Method	Guaranteed Data Min/Max	Typical Data
<b>PHYSICAL</b>			
Appearance	ASTM D 1524	Clear & Bright	Clear & Bright
Density @ 15°C(59°F) , Kg/l	ASTM D 1298	0.9 max	0.88
Kinematic Viscosity ,cSt @ 40°C @ 100°C @ 0°C	ASTM D 445	12 max 3.0 max 75 max	9.1 2.3 53
Aniline Point , °C (°F)	ASTM D 611	63(145.4) min/ 84(183.2)max	76(168.8)
Flash Point , °C(°F)	ASTM D 92	145(293) min	155(311)
Pour Point , °C(°F)	ASTM D 97	-40(-40) max	-55(-67)
Color	ASTM D 1500	L 0.5 max	< L0.5
Interfacial tension @ 25°C(77°F) , mN/m	ASTM D 971	40 min	49
<b>CHEMICAL</b>			
Total Acid Number ,mgKOH/g	ASTM D 974	0.03 max	<0.01
Corrosive Sulfur	ASTM D 1275A ASTM D 1275B	Non Corrosive Non Corrosive	Non Corrosive Non Corrosive
Antioxidant , phenols ,%wt	ASTM D 2668	0.3 max	≤ 0.3
PCB content , ppm	ASTM D 4059	Not detectable	Not detectable
Water content , ppm	ASTM D 1533	35 max	< 20

<b>ELECTRICAL</b>			
Dielectric dissipation factor @100°C , %	ASTM D 924	0.3 max	< 0.11
<b>Breakdown Voltage</b>			
-Before treatment , kV	ASTM D 877	30 min	60
-After treatment , kV	ASTM D 1816 ( 0.08” gap	35 min	50
- As processed, kV	ASTM D 1816 ( 0.08” gap )	56 min	>70
-Impulse breakdown , kV	ASTM D 3300	145 min	>300
Gassing tendency , µL/min	ASTM D 2300B	+30 max	+8
<b>OXIDATION STABILITY</b>			
<b>After 72 hours :</b>			
-Sludge , % wt	ASTM D 2440	0.1 max	<0.02
-Neutralization Number , mgKOH/g	ASTM D 2440	0.3 max	0.01
<b>After 164 hours :</b>			
-Sludge , % wt	ASTM D 2440	0.2 max	<0.02
-Neutralization Number , mgKOH/g	ASTM D 2440	0.4 max	0.03
Rotating Bomb Test , minutes	ASTM D 2112	195 min	262

*The above characteristics are average values based on recent production. Minor variations which do not affect product performance are to be expected in normal manufacture.*

**WARNING:**

Continuous contact with used oil has caused skin cancer in animal tests. Avoid prolonged contact. Thoroughly wash exposed areas with soap and water. Keep out of reach of children. Don't pollute. Conserve resources. Return used oil and bottle to collection centers

Reference SDS Number 12038 database on our website at [www.amtecol.com](http://www.amtecol.com) OR scan the code for a direct link

