

BIOTRANS 1000

BioTrans[®] 1000 Transformer Fluid

BioTrans 1000, a soy-based oil, is the cornerstone for our new line of bio-based transformer fluid. Engineered using naturally derived base oils, BioTrans is high performing and environmentally friendly. Additionally, because our base oils are derived from agricultural products, we depend on our farm industry and reduce the use of petroleum filled transformers.

The Environment

By signing the May 2002 Farm Bill, President Bush recognized the need for governmental agencies to give purchasing preferences to biobased products. Along with being bio-based, BioTrans readily protects the natural resources, our land and water. Using the OECD biodegradability method, BioTrans 1000 easily surpasses the requirements to biodegrade greater than 60% in 28 days. Whether you are selling to the government, value our environment or want to support our farm industry, look to BioTrans 1000 to provide you with solutions.

Applications

BioTrans 1000 is ideal for use in conventional applications where mineral oil-based transformer fluids are currently being used. The fluid has a proven success rate with years of installed transformer life and a perfect reliability record. Close customer relationship enables us to provide the best quality and best service in today's competitive market.

- Utilities
- Replacement oil for PCB
- Retro-fill mineral oil with BioTrans
- Water companies
- Governmental agencies
- Steel mills and other high fire-risk environments

Performance and Maintenance

BioTrans 1000 is designed to provide our customers reliable performing transformer oil with earth-friendly characteristics. BioTrans 1000 resists oxidation resulting in a longer product life. (Actual product life will depend on application, temperature, and design of the transformer.) BioTrans can be handled and processed similar to petroleum-based transformer fluids. Periodic maintenance testing should follow the same schedule as with petroleum-based transformer fluids.

Note: Even though BioTrans is compatible with mineral based oils, care should be taken to limit contamination of BioTrans lubricants, as their biodegradability and aquatic toxicity properties may be affected. Although small spills of uncontaminated BioTrans products will rapidly biodegrade, all oil spills must be reported to the proper national and local agencies.

Typical Physical, Chemical, and Electrical Properties

Test	Method	BIOTRANS 1000
Physical Properties		
Appearance	Visual	Light/clear brown
Color	ASTM 1500	0.25
Viscosity		
0°C, cSts	ASTM D445	260.1
40°C, cSts	ASTM D445	40.9
100°C, cSts	ASTM D445	9.1
Pour Point, °C(°F)	ASTM D97	-15 (5)
C.O.C Flash, °C(°F)	ASTM D92	324 (615)
Fire Point, °C(°F)	ASTM D92	362 (684)
Spec. Gravity, 15°C, max	ASTM D1298	0.925
Electrical Properties		
Power Factor, max, %		
25°C	ASTM D924	0.165
100°C	ASTM D924	3.63
Gassing Tendency, µL/min	ASTM D2300	-55.5
Dielectric Breakdown, kV		
Disk electrodes, min	ASTM D877	42
VDE elect, min, 0.04" gap	ASTM D1816	29
VDE elect, min, 0.08" gap	ASTM D1816	51
Dielectric Constant, 25°C	ASTM D924	3.04
Chemical Properties		
Oxidative Stability, RBOT	ASTM D2112	23
Acid Number	ASTM D974	0.04
Water, ppm, max	ASTM D1553	143
Corrosive Sulfur	ASTM 1275	pass
Biodegradability	OECD 301B	Pass

Note: BioTrans 1000 is available in totes, drums, or bulk for retro filling purposes.