

PO Box 14527, Wadeville 1422
562 Crocker Road
Wadeville, Johannesburg

Tel: (011) 827-5848
Fax: (011) 827-5832
E-mail: oilflow@oilflow.co.za
www.oilflow.co.za



TECHNICAL DATA SHEET

Fleetline Transformer Virgin

PRODUCT DESCRIPTION

It is a high quality naphthenic base uninhibited insulating oil with high di-electric strength and chemical stability. The expected life of transformer oil is 40 years or more. In order to meet this expectation Fleetline transformer virgin has good chemical stability when exposed to elevated temperatures, which is essential to prevent the formation of acidic materials that impair the insulating properties of the oil. To carry out its cooling and insulating functions with a minimum power requirement when pumped, and to ensure most effective heat removal when circulated by thermal action, the oil has a low viscosity at operating temperature and good fluidity at low temperatures. It complies with the most recent tests and standards relating to the effects of corrosive Sulphur and it does not contain any inhibitors or passivators.

PERFORMANCE STANDARDS

- IEC 60296:2003 – 11, 3rd Edition Standard Specification,
- ASTM D1275B (Doble's modified)
- Test requirement for corrosive sulphur
- NRS 079-1:2004
- Eskom Specification 32-406 for transformer classes B, C, D, E, F, G & H.

APPLICATIONS

Transformer virgin is suitable for filling most types of transformers and switchgear. While the IEC Specification requires a minimum Electric Strength (breakdown voltage) of 30 kV, it recognises that oil in drums cannot be expected to retain the electric strength obtained at the time of filling. To ensure that the oil in service complies with the minimum requirements, it has a breakdown voltage exceeding 70 kV when filled into drums. Special care is needed in storage, when handling, and sampling and in service to keep the oil clean and dry. It must be stored under cover and its storage time must be reduced to a minimum. It should not be transferred from one package to another. Transformer oil should preferably be filtered before being transferred into high voltage apparatus. Aeration during filling must be prevented. The oil condition should be regularly checked during service.



PO Box 14527, Wadeville 1422
562 Crocker Road
Wadeville, Johannesburg

Tel: (011) 827-5848
Fax: (011) 827-5832
E-mail: oilflow@oilflow.co.za
www.oilflow.co.za



TECHNICAL DATA SHEET Fleetline Transformer Virgin

KEY PROPERTIES

TEST	METHOD	TEST PARAMETERS	
		Min	Max
Appearance	Visual inspection	Clear from sediment and suspended matter	
Density @ 20°C, kg/ dm ³	ISO 3675 or IEC 12185		0,895
Kinematic Viscosity @40°C, mm ² /s	ISO 3104		12
Kinematic Viscosity @-30°C, mm ² /s	ISO 3104		1800
Flash Point, °C, PMCC	ISO 2719	135	.
Pour Point, °C	ISO 3016		- 40
Inter Facial Tension @25 °C mN/m	ISO 6295 (Where it is used as general requirement)	No General Requirement 40 min	
Acidity, mg KOH/ gm	IEC 62021-1		0.01
Water Content, Bulk / Drum, mg / kg	IEC 60814		30 / 40
Corrosive Sulphur	I.P. 315		Non Corrosive
Breakdown Voltage As delivered / After treatment, kV	IEC 60156	30/70	
Dielectric Dissipation Factor (Tan δ) @ 90 °C & 40 to 60 Hz	IEC 60247 or IEC61620		0.005
Corrosive Sulphur Silver Strip, 100 °C, 18 Hrs Copper Strip, 150 °C, 48 Hrs	DIN 51353 ASTM D 1275 B	Non Corrosive Non Corrosive	
Total Sulphur Content, %	BS 2000 Part 373 or ISO 14596	No General Requirement	
Anti Oxidant Additives, %	IEC 60666	(U) Unhibited Oil - Not Detectable	
Oxidation Stability @120 °C, 164 Hrs	IEC 61125 Methad C		
Total Acidity, mg KOH /gm			1.2
Sludge, %			0.8
DDF @ 90 °C	IEC 60247		0.500
Gassing Tendency, µ L / min	IEC 60628- A	No General Requirement	
PCA Content, %	BS 2000 Part 346		3
PCB Content, mg / kg	IEC 61619	Not Detectable	
2- Furfural Content, mg / kg	IEC 61198		0.1

PACKAGE SIZE	5 Litres	20 Litres	210 Litres
Transformer Virgin	✓	✓	✓

