

EIOS T2-U: Electrical Insulating Oil Specification

EIOS is our high-quality transformer oil produced by developing and applying high degree of purification techniques.

Our transformer oil has;

- Excellent oxidation stability
- Excellent dielectric strength
- Excellent chemical stability
- Non-corrosive, No PCBs
- High levels of purifying techniques, producing insulating oil for high voltage power transformers

EIOS T2-U is Type B, TVBU Uninhibited electrical insulating oil, produced from a severely hydrotreated oil meeting the General Specifications of Table 4 as defined in IEC 60296: 2020, Edition 5.0

Test Item	Unit	Test Method	Specification	Typical Values
1 - Function				
Viscosity	at 40°C mm ² /s	ASTM D 7042	≤ 12	8.593
	at -30°C mm ² /s	ASTM D 7042	≤ 1800	400.9
Pour Point	°C	ISO 3016	< -40	-42.0
Water Content	Drum mg/kg	IEC 60814	≤ 40.0	
Bulk mg/kg	IEC 60814	≤ 30.0	< 20.0	
Breakdown Voltage	As delivered kV	IEC 60156	≥ 30	≥ 60
After treatment kV	IEC 60156	≥ 70	≥ 80	
Density	at 20°C g/cm ³	ASTM D 7042	≤ 0.895	0.8447
DDF	at 90°C	IEC 60247	≤ 0.005	0.0007
2 - Refining/stability				
Color	ISO 2049	< 1.5	0.5	
Appearance	Visual Exam.	Clear & Bright	Clear & Bright	
Acidity	mg KOH/g	IEC 62021-2	≤ 0.01	0.006
Interfacial tension	mN/m	ASTM D 971	> 40	42.8
Corrosive Sulfur	DIN 51353	Not Corrosive	Not Corrosive	
Potentially Corrosive Sulfur	IEC 62535	Not Corrosive	Not Corrosive	

DBDS	mg/kg	IEC 62697-1	Not Detectable	Not Detectable
Inhibitors	Uninhibited (U) mg/kg	IEC 60666	Not Detectable	Not Detectable
Inhibited (I) mg/kg	IEC 60666	0.08 - 0.40		
Metal passivator additives	mg/kg	IEC 60666	≤ 5	Not Detectable
Other Additives	Does not contain any undeclared additives			
2-Furfural and related compounds content	mg/kg	IEC 61198	≤ 0.05	Not Detectable
3 - Performance				
Oxidation Stability	Total acidity mg KOH/g	4.8.4 of IEC 61125:2018	≤ 1.2	0.49
IEC 61125: Test duration	Sludge %	4.8.1 of IEC 61125:2018	≤ 0.80	0.17
(U) Uninhibited oil: 164hr	DDF at 90 °C	4.8.5 of IEC 61125:2018	≤ 0.500	0.040
(I) inhibited oil: 500hr				
4 - Health, safety and environment (HSE)				
Flash Point	°C	ISO 2719	≥ 135	156
PCA content	%	IP 346	≤ 3	Not Detectable
PCB content	mg/kg	IEC 61619	Not Detectable	Not Detectable

