

EIOS T2-HI Electrical Insulating Oil Specification

EIOS T2-HI is Type A, TVAL Inhibited electrical insulating oil with higher oxidation stability, produced from a severely hydrotreated oil meeting the General Specifications of Table 3 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	8.602
at -30°C mm ² /s	ASTM D 7042	≤ 1800	405.9	
Pour Point	°C	ISO 3016	< -40	-42.0
Water Content	Drum mg/kg	IEC 60814	≤ 40.0	-
Bulk mg/kg	IEC 60814	≤ 30.0	≤ 15.0	
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	0.8451
DDF	at 90°C	IEC 60247	≤ 0.005	0.0008
2 - Refining/stability				
Color	ISO 2049	< 0.5	L 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	≥ 43	43.8
Total Sulfur Content	%	ISO 14596	≤ 0.05	0.00001
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	-	-
Inhibited (I) mg/kg	IEC 60666	0.08 - 0.40	0.35	
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
Stray Gassing	H ₂ µl/L	Procedure in clause A.4 (oil saturated with air) in the presence of copper	≤ 50	Non Stray Gassing
CH ₄ µl/L	≤ 50	Non Stray Gassing		
C ₂ H ₆ µl/L	≤ 50	Non Stray Gassing		
3 - Performance				
Oxidation Stability	Total acidity mg KOH/g	4.8.4 of IEC 61125:2018	≤ 0.3	0.01
Sludge %	4.8.1 of IEC 61125:2018	≤ 0.05	0.01	
(I) inhibited oil: 500hr	DDF at 90 °C	4.8.5 of IEC 61125:2018	≤ 0.050	0.001
4 - Health, safety and environment (HSE)				
Flash Point	°C	ISO 2719	≥ 135	152
PCA content	%	IP 346	≤ 3	Not Detectable
PCB content	mg/kg	IEC 61619	Not Detectable	Not Detectable

