



ELECTRICAL OIL SERVICES

EOS® PAS

Inhibitor Concentrate

Description

EOS® PAS is a concentration of 10% of soluble metal Passivator in uninhibited transformer oil. Soluble Passivators require specialist blending to produce a homogeneous, stable solution concentrate, which is ready for controlled dosing into Mineral Transformer / Insulating Oils.

Application

EOS® PAS is a pre-blend of 10% inhibitor with transformer oil. EOS® PAS is a ready to use metal Passivator solution for use in transformer oils. The temperature-stable Passivator concentrate should be blended into IEC60296:2020 Ed.5 Table B compliant Mineral Oils at a controlled dosage rate to achieve the necessary level of Passivator for the Transformer as determined by IEC60422:2013.

EOS® PAS will impede / retard potential reactions between oil compounds and copper surfaces within transformers. This will greatly reduce the risk for formation of compounds, which may aid conductivity. EOS® PAS is supplied predominantly in 20 litre containers and should be added to the transformer main tank along with EOS® HIB inhibitor. EOS advise that both additives are used simultaneously, as adding a Passivator alone can cause stray gassing and disrupt dissolved gas analysis monitoring.

This combined mitigation technique has produced consistently good results against formation of potentially corrosive Sulphur. Recommended dosage is 100 mg/kg (0.01% by weight).

The optimised method of oil treatment should be via the use of a Mobile Processing Unit (MPU), which would ensure the correct dosage of concentrate is introduced into the main tank of the transformer under controlled conditions. This ensures the oil and Passivator are temperature-match heated, degassed and filtered prior to introduction into the Transformer.

Care must be taken to ensure the maximum dosage rate is not exceeded and that there is sufficient ullage within the main tank, cooler bank etc to accept the volume of Passivator concentrate. It is also recommended to circulate the cooler bank oil with the main oil to ensure the total volume of oil has been thoroughly mixed. EOS further recommend that the full body of oil be circulated via a Mobile Processing Unit to ensure thorough mixing and dispersal throughout the Transformer.

Property	Unit	Test Method	Specification Limits		Typical Data
			Min	Max	
Function			Min	Max	
Density @20°C	kg/dm ³	ISO 12185		0.895	0.88
Viscosity @40°C	mm ² /s	ISO 3104	10	12	10
Flash Point	°C	ISO 2719	130		140
Chemical					
Passivator	%wt	IEC 60666	9.5	10.5	10
Performance					
DDF @90°C	-	IEC 60247		0.05	0.03
Breakdown Voltage	kV	IEC 60156	30		>30

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