

	उत्पाद मानक संचारित अभियांत्रिकी निर्देश	PRODUCT STANDARD CAPACITOR ENGG. INSTRUCTION		CR 90107	पृष्ठों में Page 1 of 3											
Title :																
CAPACITOR OIL																
1.0	GENERAL :															
This specification governs the quality of unused, pure, clear, synthetic electrical insulating liquid used for Capacitor Impregnation.																
The liquid shall be chemically and physically stable on heating and compatible with capacitor grade PP film, other materials used in capacitor insulation system such as cable paper, tissue paper etc. The liquid shall contain min. 40 % of Benzyl- toluene.																
2.0	APPLICATION :															
It is used as liquid dielectric and insulating medium in capacitors.																
3.0	COMPLIANCE WITH NATIONAL STANDARD															
There is no Indian Standard covering this type of material. However assistance has been taken from IS : 13067 - 1991.																
4.0	TEST METHOD:															
The test shall be conducted in accordance with method indicated against each clause.																
5.0	TEST SAMPLE :															
5 Litre sample drawn from each manufacturing batch shall be supplied for testing at BHEL lab.																
6.0	SAMPLING:															
The sampling shall be done in accordance with IS : 6855.																
Dissipation factor and Resistivity shall be done on all individual samples drawn as per IS : 6855 and all other tests shall be done on composite sample.																
7.0	PHYSICAL PROPERTIES:															
7.1	SPECIFIC GRAVITY AT 27°C : 0.97 TO 1.01 (ASTM D 4052)															
पुन Rev. 01 दि. Dt. 01.01.14	Spec. Revised in accordance with manufacturer's spec.	Distribution CIE-1 QTR-1 CPM (P)-1	स्वीकृत किया Approved By (Aseem Dhamija)													
			तैयार किया Prep. By M.Kurre	जारी किया Issued By. CIE /STD.	दिनांक Date 11.01.12											

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	7.2 7.3 7.4 7.5 8.0 8.1 8.2 9.0 9.1 9.2 9.3 9.4 9.5	FLASH POINT, COC °C : 130°C Minimum (ASTM D92) KINEMATIC VISCOSITY AT 37.8°C/ 40°C : 2.4 to 3.52 cST. (ASTM D 445). WATER CONTENT :100 ppm Max. (ASTM D 1533). REFRACTIVE INDEX : 1.561 ± 0.01 (ASTM D 1807). This is a typical test and shall be conducted once for every 10 batches of supply. CHEMICAL PROPERTIES: NEUTRALISATION VALUE (TOTAL ACIDITY) : 0.01 mg KOH/gm. Max. (ASTM D 974) ACTIVE EPOXIDE CONTENT: 0.4 to 0.8 % By Wt. (Titrate against N/10 Hydrobromic Acid Solution) / 1.1 to 2.4 mg HCL / g (As per ASTM D 1651) ELECTRICAL PROPERTIES: DIELECTRIC STRENGTH (BDV) 2.5 mm GAP : 70 kV Min. (IS : 6792) DIELECTRIC CONSTANT 50 Hz / 100 Hz at 90°C : Min. 2.37 (ASTM D 924) DISSIPATION FACTOR AT 50 Hz / 100 Hz AT 100°C : 0.4% Max. (ASTM D 924) VOLUME RESISTIVITY AT 90°C : 25 X 10¹² Ohm-cm Min. (IS : 6103) POUR POINT: This is a typical test and shall be conducted once for every 10 batches of supply. The limiting value shall be -24°C max (ASTM D 97).
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