



**PRODUCT STANDARD**  
SWITCHGEAR ENGINEERING DIVISION

SG 10602 REV. 00

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**EPOXY RESIN MOULDINGS WITH ALUMINA FILLER**

1. GENERAL

This specification governs the quality of Alumina filled epoxy mouldings. This material is specially suitable for use inside SF6/ Arced SF6 gas media. Alumina filler in epoxy resin provides substantial resistance to decomposed SF6 gas.

2. APPLICATION:

For making switchgear components used in SF6 gas media.

3. COLOUR

RED

4. FINISH

The moulded material shall be smooth, compact, bright and free from cracks, blisters, gas pockets, foreign inclusion. It should have uniformly distributed bond.

5. TEST METHODS:

Unless otherwise specified the tests shall be conducted in accordance with the relevant methods of corporate standard AA0851701.

6. PROPERTIES:

Specific gravity ,	2.35
Tensile strength, kg/ sqmm	5-9
Bending strength, kg/ sqmm	11-15
Impact strength, kg/ sqmm	0.6-1.3
Compression strength, kg/ sqmm	15-18
Young's modulus, kg/ mmxmm	900-1070 <sup>-4</sup>
Heat expansion co-efficient	33x10
Heat deformation Temperature deg C	105

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<b>REV.</b>	00	<b>PRINTS TO :-</b>		<b>APPROVED -</b>		
<b>ALTD.</b>		HVD - 1		VR		
<b>APPD.</b>		MCD - 1		<b>PREPARED</b>	<b>ISSUED</b>	<b>DATE</b>
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Resistance , Ohm-cm	1x10
Insulation withstand, kV/mm	20-26
Power factor %	0.3 to 0.5
Hardness	88-93
Conductivity	6.4
Water absorption %	0.03-0.05

7. Machinability:

Shall be freely machinable and capable of being cut with an ordinary saw without showing any signs of splitting, cracking or chipping.

8. TEST CERTIFICATES:

3 copies of test certificates shall be supplied with each lot of components giving component name, drg No, BHEL P.O. No, Batch/ LOT No. and Test values observed against specified.

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