



Purchase Specification for Liquid Silicone Rubber	SECTION	: 1602
	Specification No	: EL-CI-LSR-02
	Rev No	: 00
	Rev Date	: 02/07/2013
	Page	: 1 of 2

Sl No	Specification	Requirement	
1	Purpose	To Manufacture Polymer Insulators by Injection molding technique for Composite Hollow Insulators for equipments like Current Transformer, Power Transformer upto 800 kV & 1200 kV systems by using 2 part A/B Liquid Silicone Rubber compound and FRP tube.	
2	Drawings	Liquid Silicone Rubber of low viscosity made out of 2 part system A & B. One part consists of Platinum catalyst which facilitates Vulcanization at low temperature as 110°C. Both Part A and Part B liquids must be individually homogeneous and free from air/bubble. Suitable stabilizing agents and additives must not settle down or get deteriorate during storage in the closed/sealed condition. Required Technical particulars for the rubber is mentioned as below	
3.	Technical Parameters		
Sl No	Test parameter	Reference standard	Specified Value
Uncured condition (A & B Mix ratio 1: 1)			
3.1	Viscosity (=10.0 s ⁻¹)	--	Maximum 70000 mPa. S
Tests on cured rubber			
3.2	Tensile Strength	ASTM D 412	Minimum 4.0 N/mm ²
3.3	Ultimate Elongation	ASTM D 412	Minimum 300%
3.4	Tear Strength	ASTM D 624-B	Minimum 20 N / mm
3.5	Specific Gravity	ASTM D 792	1.10±0.05
3.6	Hardness (Shore A)	ASTM D 2240 & IEC 62217	36 ± 8 Hardness of each specimen shall not change from the pre-boiling value by more than 20 %

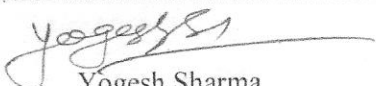
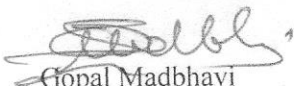
PREPARED BY	APPROVED BY
 Yogesh Sharma Senior Manager / Composite Insulator	 Gopal Madbhavi Senior Manager / CI & NP



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Rev No	: 00
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Page	: 2 of 2

3.7	Inclined Plane Tracking & Erosion Test	IEC 60587-84 / ASTM D2303-97	1 A 4.5
3.8	Tracking & Erosion Test 1000 Hours salt fog test	IEC 61462 / IEC 62217	As per acceptance criterion in IEC 62217
3.9	Arc Resistance	ASTM D 495 / ASTM D 149-97a	>300 sec
3.10	DC Volume Resistivity	IEC 60093	Minimum 1×10^{15} Ohm-cm
3.11	Di-electric Strength	IEC 60243	Minimum 23 kV/mm
3.12	Flammability Test	IEC 61462 / IEC 62217	IEC 60695 -11-10 V1
3.13	Accelerated weathering Test (1000 Hours)	IEC 62217	No surface degradation & such as cracks and raised areas
4.	Packing	Part A - 200 Liter container. / Part B 200 Liter container Sealed Containers must be dent free till delivery at BHEL stores.	
5.	Test Certificate	Test Certificate of the material batch wise must accompany the supplies.	
6.	Handling Instruction	Handling Instructions must be accompany the supplies.	
7.	Material Safety Data Sheet	Latest MSDS must accompany the supplies.	

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