



<b>Purchase Specification for Liquid Silicone Rubber</b>	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	<b>Purpose</b>	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	<b>Drawings</b>	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.	<b>Technical Parameters</b>		
Sl No	Test parameter	Reference standard	Specified Value
Uncured condition ( A & B Mix ratio 1: 1 )			
3.1	Viscosity (=10.0 s <sup>-1</sup> )	--	Maximum 70000 mPa. S
Tests on cured rubber			
3.2	Tensile Strength	ASTM D 412	Minimum 4.0 N/mm <sup>2</sup>
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 %

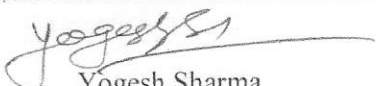
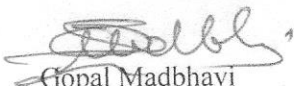
PREPARED BY	APPROVED BY
 Yogesh Sharma Senior Manager / Composite Insulator	 Gopal Madbhavi Senior Manager / CI & NP



## Purchase Specification for Liquid Silicone Rubber

SECTION	: 1602
Specification No	: EL-CI-LSR-02
Rev No	: 00
Rev Date	: 02/07/2013
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 $1 \times 10^{15}$ 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.	<b>Packing</b>	Part A - 200 Liter container. / Part B 200 Liter container Sealed Containers must be dent free till delivery at BHEL stores.	
5.	<b>Test Certificate</b>	Test Certificate of the material batch wise must accompany the supplies.	
6.	<b>Handling Instruction</b>	Handling Instructions must be accompany the supplies.	
7.	<b>Material Safety Data Sheet</b>	Latest MSDS must accompany the supplies.	

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