

POLYMER (COMPOSITE INSULATORS):

The Usage of COMPOSITE INSULATORS in India is growing at a phenomenal pace. Normally India's electric network operates under very harsh environments. Industrial Pollution, Coastal Region, Hilly and Un-friendly areas etc. At the beginning there were only Ceramic Insulators. Greater use has been made of silicone rubber due to its weather resistance, which is virtually permanent, and its hydrophobic properties, which allow improvement in the maximum, withstand pollution of voltage and this had led to an explosive increase in the use of composite insulator.

33 KV, 10 KN, 900 CD Silicon Rubber Composite Polymer Pin Insulator

Sr. No	Name of Parameters	Parameter Type	
1.	Type of insulator	Silicon Rubber Composite Polymer Disc Insulator	
2.	Standard according to which the insulators manufactured & tested	IEC 61109 - 2008	
3.	Name of material used in manufacture of the insulator with class / grade	-	
4.	A	Material of core (FRP Rod)	Boron Free E Glass
	B	Material of housing and weathersheds (Silicon content by weight)	Silicon Rubber (30%) Min
	C	Material of End fittings	SG Iron/ Forged Steel
	D	Sealing compound for end fittings	Silicon Elastoseal
5.	Colour	Grey	
6.	Electrical characteristics		
	A	Nominal System Voltage	33 kV
	B	Highest System Voltage	36 Kv
	C	Dry Power Frequency withstand Voltage	95 Kv
	D	Wet power Frequency withstand Voltage	75 Kv
	E	Dry Flashover Voltage	100 Kv
	F	Wet Flashover Voltage	85 Kv
	G	Dry lighting impulse withstand Voltage	
	(a)	Positive	170 Kv
	(B)	Negative	169 Kv
	H	Dry lighting impulse flashover Voltage	
	(A)	Positive	180 Kv
	(B)	Negative	180 Kv
	i	RIV at MHz when energized at 19.9 Kv /72.6 (rms) under dry condition	30KVRMS micro Volt
J	Creepage Distance (Min.)	900 mm	
7.	Mechanical Characteristics		
	(a)	Minimum Failing Load Tensile	10 kN
8.	Dimensions of Insulators		
	A	Weight	2.00 Kg Approx)
	B	Dia of FRP Rod	33.5 mm
	C	Length of FRP Rod	375+/-20 mm
	D	Dia of Weathersheds	
		Shed Diameter in mm	Big 160 mm Small 130
	E	Thickness of housing	3.0 mm
	F	Dry Arc Distance	360 mm
G	Dimensional Drawing	Encl.	
9.	Method of Fixing of sheds to housing	Single Mould (injection Molding)	
10.	No. of Weathersheds	7 big 4 small 3	
11.	Type of Shed	Aerodynamic	
12.	Packing Details		
	A	Type of packing	Corrugated Boxes
	B	No. of Insulator in Each pack	As per Both End Coneniency
	C	Gross Weight of Package	