

Specification of Composite Hollow Insulator

(Specification No. TS/HVE/2016-17/CHI/011)

1. **Purpose:** 245kV composite hollow insulator would be used for mounting of optical sensors in high voltage substation.
2. **Scope of Supply:** Two (2) numbers of 245 kV, composite hollow insulator (porcelain not acceptable).
3. **Technical Specifications:** Vendor to confirm each point of the technical specification table:

S.No.	Parameter	Specification/Requirement	Vendor's Confirmation
Electrical Requirement			
1.	System voltage	245 kV	
2.	System frequency	50 Hz	
3.	Standard Insulation Level a) Lightning Impulse withstand voltage b) Power Frequency withstand voltage (1 min)	a) 1050 kV b) 460 kV	
Insulator Data (Refer Figure 1)			
4.	Creepage distance, L	4900 mm minimum	
5.	Insulator Length, H	Vendor to specify	
6.	Arcing distance, SW	Vendor to specify	
7.	Insulator tube diameter	ID (ø I) : 130 mm ± 2 mm OD (ø D): 142 mm ± 2 mm	
8.	Tube material	FRP	
9.	Shed material	Silicone rubber	
10.	Outer flange diameter (both top & bottom)	< 220 mm	
Mechanical Requirement			
11.	Mechanical Load	< 2.0 kN	
12.	Burst pressure	> 1.5 MPa at RT	
Physical Requirement			
13.	Service temperature	- 40 to + 80 °C	
14.	Insulator Weight	Vendor to specify	
15.	Insulating Medium	None (Air)	

4. **Insulator Drawing:** Detailed drawing of the proposed composite hollow insulator should be submitted along with the technical bid.
5. **Factory Tests:** Test reports (confirming electrical requirements) for similar insulators to be provided for information, along with the technical bid.
6. **Warranty:** Vendor shall provide warranty for the insulator to ensure reliability of the insulator for a period of not less than 12 months.
7. **Other Information:** Vendor should provide reference list of customers to whom similar insulators has been supplied. Also, vendor can furnish any other/additional information, considering overall requirements.

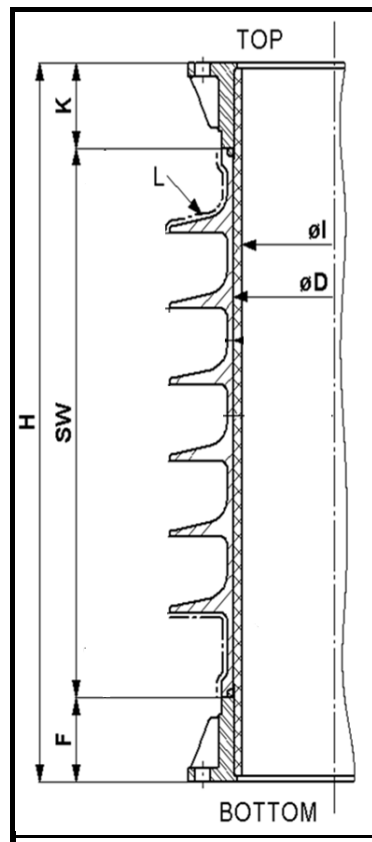


Figure 1: Typical Insulator Geometry for 245kV Composite Hollow Insulator