CHAPTER 31: TECHNICAL SPECIFICATIONS OF POST INSULATORS

The post insulators shall conform in general to latest IS: 2544, IEC-60168, IEC60273 and IEC-60815.

Post type insulators shall consist of a porcelain part permanently secured in a metal base to be mounted on the supporting structures. They shall be capable of being mounted upright. They shall be designed to withstand any shocks to which they may be subjected to by the operation of the associated equipment. Only solid core insulators will be acceptable. Conical design insulator shall not be accepted.

Porcelain used shall be homogeneous, free from lamination, cavities and other flaws or imperfections that might affect the mechanical or dielectric quality and shall be thoroughly vitrified, tough and impervious to moisture.

Glazing of the porcelain shall be of uniform brown in colour, free from blisters, burrs and other similar defects.

All ferrous parts shall be hot dip galvanised in accordance with the latest edition of IS: 2633, & IS: 2629. The zinc used for galvanising shall be grade Zn 99.95 as per IS: 209. The zinc coating shall be uniform, adherent, smooth, reasonably bright, continuous and free from imperfections such as flux ash, rust stains, bulk white deposits and blisters. The metal parts shall not produce any noise generating corona under the operating conditions.

Sl. No	Parameters	400 kV	220 kV	132 kV	33 KV
1	Type	Solid Core	Solid Core	Solid Core	Solid Core
2	Highest system voltage	420 kV	245 kV	145 kV	36 kV
3	Dry one minute power frequency test voltage	680 kV	510 kV	275 kV	75 kV
4	Dry Impulse voltage withstand test	1425 kV	1050 kV	650 kV	170 kV
5	Wet switching surge withstand voltage (kVp)	±1050	-	-	-
5	Minimum Creepage Distance	13020 mm	7595 mm	4495 mm	1116 mm
6	Minimum Bending Strength (upright)	10 kN	8 kN	6- kN	4-kN

Note: Cantilever strength may be higher as per EDF calculations to be carried out by the successful bidder during detailed engineering