



Specification Sheet

Glass Reinforced Pole Insulation

Revised: August, 2004

Collar

- Our insulation material is made of continuous filament glass cloth, polyester base glass mat like GP01. GP02 and GP03 are not acceptable.
- The collars are to be made in one piece, no splice or joining technique is acceptable since it will lower the mechanical properties of the collar.
- All machined surfaces have to be coated with a compatible resin system (same resin as the laminate is preferable).
- All collars 4 feet and longer should have a Teflon coated material of 0.006" thick imbedded during the fabrication at both ends for a distance of 10", to allow the copper coil thermal expansion to occur without wearing the insulation. Teflon tape is not acceptable since it will get pushed out while the machine is in rotation.
- Original dimension of the collar thickness can be increased but not reduced. All other dimensions should not be altered. The tolerance on the collar thickness has to be within + or - 0.010".

Pole Sleeve Insulation

- The pole sleeve insulation can be made of 4 overlapping pieces with an overlap of 0.5" minimum. The thickness of the insulation should be 0.080" minimum and all the insulation should be tested at 10kV for 1 minute over the complete surface.

Properties of the insulation

Tensile Strength (minimum value)	ASTM D 638	30,000 psi
Compressive Strength	ASTM D 695	30,000 psi
Flexural Strength (minimum value)	ASTM D 790	30,000 psi
Shear Strength, acrosss eidth		5,500 psi
Water Absorption	ASTM D 570	0.1 %
Fiber Content (by weight)		65 %
Peel Test (Teflon)	ASTM D 903	required
Dielectric Strength (perpendicular) (for 0.080 THK)	ASTM D 229	10 kV