

EPR Insulation Performance Specifications

• The insulation shall be a premium quality, heat, moisture, ozone and corona resistant thermosetting ethylene propylene; TYPE I, II or III as listed in ICEA S-93-639 or ICEA S-97-682. The cable manufacturer shall compound the insulation material with in its own or remotely owned facilities. The insulation shall be compatible with both the conductor shield and the insulation shield. The thickness shall be at the 100% or 133% level as applicable and in accordance with the latest edition of ICEA.

• S-93-639, ICEA S-97-682 and UL 1072. The diameters over the insulation shall be in accordance with ICEA S-97-682. The EPR insulation shall also meet the guaranteed values as listed in the table below.

	PHYSICAL REQUIREMENTS	GURANTEED VALUE
UNAGED	Tensile Strength, psi, min.	1600
	Elongation at rupture, %, min.	275
	Tensile Stress at 200% elongation psi, min. at room temperature	1000
	Modulus, psi, min. @130°C	300
After Air Oven Aging at 121°C for 7 days (168 hours)	Tensile Stress, % of unaged value, min.	90
	Elongation at rupture, %, unaged value, min.	90
Hot Creep Test at 150°C	Elongation, %, max.	25
	Set, %, max.	5
Heat Distortion after 1 hour in air oven at 121°C	Percent. Max.	8.5
Ozone Resistance	0.030% Concentration, 25°C, 24 hours	No Cracks
	0.0005% Concentration, 52°C, 24 hours	No Cracks
Cold Bend	-55°C	No Cracks
Heat Deformation Test per ASTM D2220	% Max. Distortion of buffed samples of insulation conditioned for 5 minutes and under load for 15 minutes	No Cracks