# EPR INSULATIONS

## Physical and Electrical Specification Data

| Test Requirements | 0-5000 Volts | | 0-35,000 Volts | |
|---|---|---|---|---|
| | Guaranteed Value | Typical Value | Guaranteed Value | Typical Value |
| **PHYSICAL PROPERTIES** | | | | |
| Original Tensile Strength, psi | 700 min. | 1000 | 1200 min. | 1800 |
| Original Elongation, percent | 250 min. | 400 | 250 min. | 370 |
| Tensile Stress @ 100% Elong., psi | N/A | N/A | 500 min. | 750 |
| Aged - Air Oven - 168 Hr. @ 121°c | | | | |
| Percent of Original | | | | |
| Tensile | 75 min. | 95 | 80 min. | 95 |
| Elongation | 75 min, | 90 | 80 min, | 95 |
| Hot Creep, 150°C | | | | |
| Elongation, % | 50 max. | 10 | 50 max. | 10 |
| Set, % | 5 max. | 0 | 5 max. | 0 |
| **ELECTRICAL PROPERTIES** | | | | |
| Insulation Resistance Constant (K) | 20,000 min. | >100,000 | 20,000 min. | > 100,000 |
| SIC at R.T. | 4.0 max. | 2.8 | 4.0 max. | 2.7 |
| D.F. at R.T., % | 2.0 max. | 1.0 | 1.5 max. | < 0.5 |
| Accelerated Water Absorption | | | | |
| SIC, 75°C Water | 4.0 max. | 2.8 | 4.0 max. | 2.7 |
| % Change in SIC, 75°C Water | | | | |
| 1 - 14 days | 3.5 max. | < 0.5 | 3.5 max. | < 0.5 |
| 7 - 14 days | 1.5 max. | < 0.5 | 1.5 max, | < 0.5 |
| Stability Factor after 14 Days | 1.0 max. | .10 | 1.0 max. | .10 |
| **COLD BEND** | | | | |
| 1 Hr. @ 3 X O.D. | - 35°C | < - 40°C | - 35°C | < - 40°C |
| **Complies with:** | | | | |
| ICEA S-95-658 / NEMA WC 70 | Class E-1 | | Class E-1 and E-2 | |
| ICEA S-96-659 / NEMA WC 71 | Class E-1 | | Class E-1 and E-2 | |
| ICEA S-93-639 / NEMA WC 74 | Class I | | Class I and II | |
| ICEAS-97-682 | Class I | | Class I and II | |
| ICEA S-94-649 | Class I | | Class I and II | |
| ICEA S-75-381 / NEMA WC 58 | Type I | | Type I and II | |