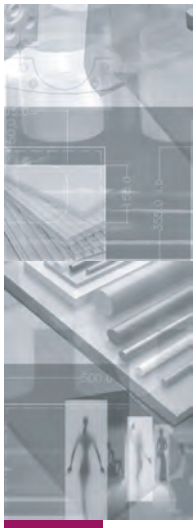

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# PRODUCT DATA SHEET

## Bay Plastics Ltd

## KITE BRAND TUFNOL (Phenolic Paper Laminates)

| Property | Typical Results | Units |
|---|---|---|
| Cross breaking strength | 175 | MPa |
| Impact Strength notched, charpy | 2.7 | $kj/m^2$ |
| Compressive strength flatwise | 350 | MPa |
| Compressive strength edgwise | 200 | MPa |
| Resistance to flatwise compression | 1.2 | % |
| Shear Strength, flatwise | 105 | Mpa |
| Water absorption | | |
| - 1.6mm thk | 39 | mg |
| - 3mm thk | 47 | mg |
| - 6mm thk | 56 | mg |
| - 12mm thk | 70 | mg |
| Electric strength edgewise in oil at 90 ℃ | | |
| - 1.6mm thk | 14.5 | MV/m |
| - 3mm thk | 13 | MV/m |
| - 6mm thk | 8.8 | MV/m |
| - 12mm thk | 6.1 | |
| Electric strength edgewise in oil at 90 ℃ | 55 | kV |
| Insulation resistance after immersion in water | $1x10^{10}$ | ohms |
| Loss tangent at 1 MHz | 0.037 | - |
| Permittivity at 1 MHz | 5.1 | - |
| Relative density | 1.36 | - |
| maximum working temperature** | | |
| - continous | 90 | ℃ |
| - intermittent | 120 | ℃ |
| Thermal classification | Class E | - |
| Thermal conductivity through laminea | 0.26 | W/(mK) |
| Thermal expension in plane of laminea | 1.8 | $X10^{-5}/k$ |
| Specific heat | 1.5 | kj(kgK) |
| Test methods as BS 2572, where applicable | | |
| **ROUND RODS** | | |
| Fleural strength | 170 | MPa |
| Water absorption | 2.5 | mg/cm |
| Insulation resistance after immersion | 5x10 | ohms |
| Axial electric strength in oil at 90℃ | 15 | kv |
| Relative density | 1.35 | - |
| Tesr methods as BS 6128 | | |
| **ROUND TUBES** | | |
| Axial compressive strength | 190 | MPa |
| Cohesion between layers | 110 | MPa |
| Water absorption | 1.0 | $mg/cm^2$ |
| insulation resistance after immersion in water | $1x10^9$ | ohms |
| Axial electric strength in oil 90℃ | | |
| Radial electric strength in oil at 90℃ | | |
| - 1.6 wall | 8 | MV/m |
| - 3.0 wall | 6 | MV/m |
| Relative density | 1.35 | - |

**SPECIFICATIONS**

| | | |
|---|---|---|
| British Standards | Sheet: BS EN 60893 Type PF CP 206 | Round tube: EN 61212-3-2 Type PF CP 32 |
| Admirality | Sheet: NES 2053 | Round tube: NES 2054 |
| NEMA* | Sheet: Nema Type XXX | Round tube: Nema Type XXX |
| MIL* | Sheet: MIL-I-24768 | Round tube: MIL-I-24768 |



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