

Test Report Data Sheet

Material Type: Insulating HDPE

| AGIPC Material Testing Lab | | | |
|---|------------------|-------------|-------------------|
| High Density Polyethylene (Natural) NI1030 | | | |
| Item | Result | Test Method | Unit |
| <i>Melt Flow Index</i> | 0.5±0.1 | ASTM D1238 | g/10min |
| <i>Density</i> | 0.944±0.002 | ASTM D792 | g/cm ³ |
| <i>Ultimate Tensile Strength</i> | 25±2 | ASTM D638 | N/mm ² |
| <i>Elongation At Break</i> | 950±50 | ASTM D638 | % |
| <i>Retention of mechanical properties after aging 48hours at 100 °C</i> | 95±3 | ASTM D638 | % |
| <i>Brittleness Temperature</i> | -50±10 | ASTM D746 | °C |
| <i>ESCR</i> | >48 | ASTM D1693 | hours |
| <i>OIT</i> | 40±5 | ASTM D3895 | min |
| <i>Thermal Stress Cracking at 100°C</i> | >96 | ASTM D2951 | hours |
| <i>Dielectric Constant at 1 MHZ</i> | 2±0.1 | ASTM D150 | --- |
| <i>Dissipation Factor at 1 MHZ</i> | 0.005±0.001 | ASTM D150 | --- |
| <i>Water Immersion Stability</i> | Pass | ASTM D149 | --- |
| <i>Dielectric Strength</i> | 25±1 | ASTM D140 | Kv/mm |
| <i>DC Volume Resistivity at 23°C</i> | 10 ¹⁵ | ASTM D257 | Ohm.cm |

Application

- Insulating telephone single wire at high speeds (up to 2400 m/min)