

Arnitel® PM581 TPC-ET

Extrusion Grade, Heat Stabilized

Print Date: 2024-09-17

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|--|--------------|-----------|--------------|
| RHEOLOGICAL PROPERTIES | VALUE | | |
| Melt volume-flow rate | 4 | cm³/10min | ISO 1133 |
| Temperature | 230 | °C | ISO 1133 |
| Load | 2.16 | kg | ISO 1133 |
| | | | |
| MECHANICAL PROPERTIES | VALUE | | |
| Shore D Hardness (3s) | 53 | _ | ISO 868 |
| Tensile modulus | 250 | MPa | ISO 527-1/-2 |
| Stress at break | 26 | MPa | ISO 527-1/-2 |
| Nominal strain at break | 220 | % | ISO 527-1/-2 |
| Stress at 5% strain | 9.5 | MPa | ISO 527-1/-2 |
| Stress at 10% strain | 14 | MPa | ISO 527-1/-2 |
| Stress at 50% strain | 18 | MPa | ISO 527-1/-2 |
| Stress at 100% strain | 20 | MPa | ISO 527-1/-2 |
| Charpy notched impact strength (+23°C) | N | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength (-30°C) | 16 | kJ/m² | ISO 179/1eA |
| Izod notched impact strength (+23°C) | N | kJ/m² | ISO 180/1A |
| Izod notched impact strength (-30°C) | 25 | kJ/m² | ISO 180/1A |
| Flexural modulus | 240 | MPa | ISO 178 |
| MECHANICAL PROPERTIES (DIE CUTTING) | VALUE | | |
| Stress at break (normal) | 43 | MPa | ISO 527-1/-2 |
| Stress at 100% strain (normal) | 16 | MPa | ISO 527-1/-2 |

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Property Data

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| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|--|--------------|--------|-----------------------|
| Tear strength (normal) | 141 | kN/m | ISO 34-1; Method B |
| Tear strength (parallel) | 149 | kN/m | ISO 34–1; Method B |
| Strain at break (normal) | 710 | % | ISO 527-1/-2 |
| | | | |
| THERMAL PROPERTIES | VALUE | | |
| Melting temperature (10°C/min) | 218 | °C | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 100 | °C | ISO 75-1/-2 |
| Vicat softening temperature (50°C/h 50N) | 80 | °C | ISO 306 |
| Vicat softening temperature (50°C/h 10N) | 204 | °C | ISO 306 |
| Coeff. of linear therm. expansion (parallel) | 1.1 | E-4/°C | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion (normal) | 1.1 | E-4/°C | ISO 11359-1/-2 |
| | | | |
| ELECTRICAL PROPERTIES | VALUE | | |
| Relative permittivity (100Hz) | 4.7 | _ | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 4.4 | _ | IEC 62631-2-1 |
| Dissipation factor (100 Hz) | 310 | E-4 | IEC 62631-2-1 |
| Dissipation factor (1 MHz) | 810 | E-4 | IEC 62631-2-1 |
| Volume resistivity | >1E13 | Ohm*m | IEC 62631-3-1 |
| Electric strength | 21 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 600 | V | IEC 60112 |
| | | | |
| OTHER PROPERTIES | VALUE | | |
| Density | 1240 | kg/m³ | ISO 1183 |
| Water absorption | 2.5 | % | Sim. to ISO 62 |
| Humidity absorption | 0.4 | % | Sim. to ISO 62 |

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