

Arnitel® EM400 TPC-ET

Injection Molding or Extrusion Grade

Print Date: 2018-05-01

| Properties | Typical Data | Unit | Test Method |
|--|--------------|-----------|-------------------|
| Rheological properties | Value | | |
| Melt volume-flow rate | 33 | cm³/10min | ISO 1133 |
| Temperature | 230 | °C | ISO 1133 |
| Load | 2.16 | kg | ISO 1133 |
| Molding shrinkage [parallel] | 1.5 | % | Sim. to ISO 294-4 |
| Molding shrinkage [normal] | | % | |
| Molding Shimkage [normal] | 1.5 | 90 | Sim. to ISO 294-4 |
| Mechanical properties | Value | | |
| Shore D Hardness (3s) | 33 | - | ISO 868 |
| Tensile modulus | 40 | MPa | ISO 527-1/-2 |
| Stress at break | 21 | MPa | ISO 527-1/-2 |
| Nominal strain at break | 825 | % | ISO 527-1/-2 |
| Stress at 5% strain | 2.1 | MPa | ISO 527-1/-2 |
| Stress at 10% strain | 3.5 | MPa | ISO 527-1/-2 |
| Stress at 50% strain | 6.5 | MPa | ISO 527-1/-2 |
| Stress at 100% strain | 7.3 | MPa | ISO 527-1/-2 |
| Charpy notched impact strength (+23°C) | N | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength (-30°C) | N | kJ/m² | ISO 179/1eA |
| Izod notched impact strength (+23°C) | N | kJ/m² | ISO 180/1A |
| Izod notched impact strength (-20°C) | N | kJ/m² | ISO 180/1A |
| | | | |
| Thermal properties | Value | | |
| Melting temperature (10°C/min) | 195 | °C | ISO 11357-1/-3 |
| Coeff. of linear therm. expansion (parallel) | 2.2 | E-4/°C | ISO 11359-1/-2 |

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Property Data

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| Properties | Typical Data | Unit | Test Method |
|--|--------------|--------|-----------------|
| Coeff. of linear therm. expansion (normal) | 2.2 | E-4/°C | ISO 11359-1/-2 |
| Burning Behav. at 1.5 mm nom. thickn. | НВ | class | IEC 60695-11-10 |
| Thickness tested | 1.6 | mm | IEC 60695-11-10 |
| | | | |
| Electrical properties | Value | | |
| Relative permittivity (100Hz) | 4.1 | - | IEC 60250 |
| Relative permittivity (1 MHz) | 4 | - | IEC 60250 |
| Dissipation factor (100 Hz) | 10 | E-4 | IEC 60250 |
| Dissipation factor (1 MHz) | 170 | E-4 | IEC 60250 |
| Volume resistivity | 1E13 | Ohm*m | IEC 60093 |
| Electric strength | 20 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 600 | V | IEC 60112 |
| | | | |
| Other properties | Value | | |
| Density | 1110 | kg/m³ | ISO 1183 |
| Apparent density | 690 | kg/m³ | ISO 60 |
| Water absorption | 0.75 | % | Sim. to ISO 62 |
| Humidity absorption | 0.3 | % | Sim. to ISO 62 |

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