

Bayblend FR 2010

FR grades / Non reinforced

Injection molding grade; easy-flow grade; Vicat/B 120 temperature = 108 °C; UL-listing 94 V-0 (1.5 mm); antimony-, chlorine- and bromine-free flame retardant; glow wire test (GWFI): 960 °C (2.0 mm); optimized processability; good light stability.

ISO Shortname

| Property | Test Condition | Unit | Standard | Value |
|--|--|--------------------|----------------|-------------|
| Rheological properties | | | | |
| Spiral flow length | 0.100 in, 490 °F melt temperature | in | Bayer test | 24 |
| Melt mass-flow rate | 240 °C; 5 kg | g/(10 min) | ASTM D1238 | 25 |
| Molding shrinkage, parallel | 500 bar | in/in | ASTM D955 | 0.005-0.007 |
| Molding shrinkage, normal | 500 bar | in/in | ASTM D955 | 0.005-0.007 |
| Mechanical properties (23 °C/50 % r. h.) | | | | |
| Tensile modulus | 1 mm/min | lb/in ² | ASTM D638 | 392000 |
| Tensile stress at yield | 73 °F, 0.2 in/min | lb/in ² | ASTM D638 | 8700 |
| Tensile elongation at yield | 73 °F, 0.2 in/min | % | ASTM D638 | 4 |
| Tensile stress at break | 73 °F, 0.2 in/min | lb/in ² | ASTM D638 | 7250 |
| Tensile elongation at break | 73 °F, 0.2 in/min | % | ASTM D638 | > 50 |
| Unnotched impact strength | 73 °F, 0.125 in | ft-lb/in | ASTM D4812 | no break |
| Izod notched impact strength | 73 °F, 0.125 in | ft-lb/in | ASTM D256 | 10 |
| Flexural modulus | - | lb/in ² | ASTM D790 | 390000 |
| Flexural stress at 5 % strain | - | lb/in ² | ASTM D790 | 13800 |
| Thermal properties | | | | |
| Deflection temperature under load, Unannealed | 264 psi; 0.250 in | °F | ASTM D648 | 200 |
| Vicat softening temperature | Rate B; 5 kg; 120 °C/h | °F | ASTM D1525 | 226 |
| Coefficient of linear thermal expansion, flow/cross-flow | | in/in/°F | ISO 11359-1,-2 | 4.3E-5 |
| UL94 Flame Class 5V [UL recognition] | Thickness tested: 2.2 mm | Class | UL 94 | 5VB |
| UL94 Flame Class 5V [UL recognition] | Thickness tested: 3.0 mm | Class | UL 94 | 5VA |
| Relative temperature index (Electric strength) | Thickness tested: 1.5 mm | °C | UL 746B | 95 |
| Relative temperature index (Tensile impact strength) | Thickness tested: 1.5 mm | °C | UL 746B | 85 |
| Relative temperature index (Tensile strength) | Thickness tested: 1.5 mm | °C | UL 746B | 85 |
| Electrical properties (23 °C/50 % r. h.) | | | | |
| Relative permittivity | 100 Hz | - | IEC 60250 | 3.2 |
| Relative permittivity | 1 MHz | - | IEC 60250 | 3.1 |
| Dissipation factor | 100 Hz | 10 ⁻⁴ | IEC 60250 | 40 |
| Dissipation factor | 1 MHz | 10 ⁻⁴ | IEC 60250 | 70 |
| Volume resistivity | | Ohm-m | IEC 60093 | 1.0 E14 |
| Surface resistivity | | Ohm | IEC 60093 | 1.0 E16 |
| Electrical strength | | kV/mm | IEC 60243-1 | 35 |
| Comparative tracking index CTI | Solution A | Rating | IEC 60112 | 350 |
| Other properties (23 °C) | | | | |
| Water absorption | 73 °F; immersion to saturation; 0.125 in | % | ISO 62 | 0.5 |
| Water absorption | 73 °F, 50% RH in air to saturation, 0.125-in | % | ISO 62 | 0.2 |
| Density | | kg/m ³ | ASTM D792 | 1180 |
| Processing conditions for test specimens | | | | |
| C Injection molding-Melt temperature | | °C | ISO 294 | 240 |
| C Injection molding-Mold temperature | | °C | ISO 294 | 80 |
| C Injection molding-Injection velocity | | mm/s | ISO 294 | 240 |



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Flammability

Flammability results are based on small-scale laboratory tests for purposes of relative comparison and are not intended to reflect the hazards presented by this or any other material under actual fire conditions.

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