# Rynite® 940E BK505

PET-(GF+P)40 Celanese

## Product Texts

Common features of Rynite® thermoplastic polyester include mechanical and physical properties such as excellent balance of strength and stiffness, dimensional stability, creep resistance, heat resistance, high surface gloss and good inherent electrical properties at elevated temperature. It can be processed over a broad temperature range and has excellent flow properties.

Rynite® thermoplastic polyester resins are typically used in demanding applications in the automotive, electrical and electronics, appliances where they successfully replace metals and thermosets, as well as other thermoplastic polymers.

**Rynite® 940E BK505 is a 40% mica/glass reinforced modified polyethylene terephthalate resin with low warpage, high stiffness and strength, and excellent electrical properties.**

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Molding shrinkage, parallel | **0.2** | % | ISO 294-4, 2577 |
| [C] Molding shrinkage, normal | **0.7** | % | ISO 294-4, 2577 |
| [C] Ejection temperature | **170** | °C | - |

[C]: CAMPUS

| Mechanical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Tensile Modulus | **12500** | MPa | ISO 527 |
| [C] Stress at break | **110** | MPa | ISO 527 |
| [C] Strain at break | **1.8** | % | ISO 527 |
| [C] Charpy impact strength, +23°C | **35** | kJ/m² | ISO 179/1eU |
| [C] Charpy notched impact strength, +23°C | **7** | kJ/m² | ISO 179/1eA |

[C]: CAMPUS

| Thermal properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Melting temperature, 10°C/min | **250** | °C | ISO 11357-1/-3 |
| [C] Temp. of deflection under load, 1.80 MPa | **220** | °C | ISO 75-1/-2 |
| [C] Temp. of deflection under load, 0.45 MPa | **241** | °C | ISO 75-1/-2 |
| [C] Coeff. of linear therm. expansion, parallel | **15** | E-6/K | ISO 11359-1/-2 |
| [C] Coeff. of linear therm. expansion, normal | **60** | E-6/K | ISO 11359-1/-2 |

[C]: CAMPUS

| Electrical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Relative permittivity, 100Hz | **4.2** | - | IEC 62631-2-1 |
| [C] Relative permittivity, 1MHz | **3.9** | - | IEC 62631-2-1 |
| [C] Dissipation factor, 100Hz | **70** | E-4 | IEC 62631-2-1 |
| [C] Dissipation factor, 1MHz | **146** | E-4 | IEC 62631-2-1 |
| [C] Volume resistivity | **1E13** | Ohm*m | IEC 62631-3-1 |
| [C] Surface resistivity | **1E14** | Ohm | IEC 62631-3-2 |
| [C] Electric strength | **33** | kV/mm | IEC 60243-1 |
| [C] Comparative tracking index | **250** | - | IEC 60112 |

[C]: CAMPUS

| Other properties | Value | Unit | Test Standard |
|---|---|---|---|
| [C] Density | **1640** | kg/m³ | ISO 1183 |

[C]: CAMPUS

## Characteristics

**Processing**
Injection Molding

**Delivery form**
Pellets, Black

**Additives**
Release agent

**Features**
Low Warpage

**Regional Availability**
Europe