# Bayblend® FR3005 HF BBS314

**Covestro - Polycarbonates - *Polycarbonate + ABS***

## General Information

**Product Description**

(PC+ABS)-Blend; flame retardant; very easy-flowing; Vicat/B 120 temperature = 96°C; UL recognition 94 V-0 at 1.5 mm; Components for the electrical/electronics sector

| General | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Additive | • Flame Retardant | | |
| Features | • Flame Retardant | • Good Flow | |
| Uses | • Electrical/Electronic Applications | | |
| ISO Designation | • PC+ABS-FR(40) | | |

## Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density (73°F) | 1.19 | g/cm³ | ISO 1183 |
| Melt Volume-Flow Rate (MVR) (240°C/5.0 kg) | 38 | cm³/10min | ISO 1133 |
| Molding Shrinkage [2] | | | ISO 2577 |
| Across Flow : 464°F, 0.118 in | 0.30 to 0.50 | % | |
| Flow : 464°F, 0.118 in | 0.30 to 0.50 | % | |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus (73°F) | 392000 | psi | ISO 527-1/1 |
| Tensile Stress (Yield, 73°F) | 8700 | psi | ISO 527-2/50 |
| Tensile Stress (Break, 73°F) | 6530 | psi | ISO 527-2/50 |
| Tensile Strain (Yield, 73°F) | 3.6 | % | ISO 527-2/50 |
| Tensile Strain (Break, 73°F) | > 40 | % | ISO 527-2/50 |
| Flexural Modulus [3] (73°F) | 406000 | psi | ISO 178 |
| Flexural Stress [3] (73°F) | 13600 | psi | ISO 178 |
| Flexural Strain at Flexural Strength [4] (73°F) | 5.0 | % | ISO 178 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact Strength (73°F) | 5.7 | ft·lb/in² | ISO 180/A |
| Unnotched Izod Impact Strength (73°F) | No Break | | ISO 180 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (66 psi, Unannealed) | 194 | °F | ISO 75-2/B |
| Deflection Temperature Under Load (264 psi, Unannealed) | 174 | °F | ISO 75-2/A |
| Vicat Softening Temperature | 205 | °F | ISO 306/B120 |
| CLTE - Flow (73 to 131°F) | 3.9E-5 | in/in/°F | ISO 11359-2 |
| CLTE - Transverse (73 to 131°F) | 4.0E-5 | in/in/°F | ISO 11359-2 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface Resistivity | 1.0E+16 | ohms | IEC 60093 |
| Volume Resistivity (73°F) | 1.0E+17 | ohms·cm | IEC 60093 |
| Comparative Tracking Index (Solution A) | 250 | V | IEC 60112 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating | | | UL 94 |
| 0.06 in | V-0 | | |
| 0.07 in | 5VB | | |
| **Fill Analysis** | **Nominal Value** | **Unit** | **Test Method** |
| Melt Viscosity [5] (464°F) | 120 | Pa·s | ISO 11443-A |

| Notes |
| --- |
| [1] Typical properties: these are not to be construed as specifications. |
| [2] 150x105x3 mm, 80°C MT |
| [3] 0.079 in/min |
| [4] 2.0 mm/min |
| [5] 1000s-1 |