

Technical Data Sheet

Polyflam PC-FR0 BR8130BWN



Polycarbonate

Product Description

Polycarbonate, UL Recognized 94 V-0, 94 5VAUV Stable/Weatherable, f1 Rated - Colors Available Elevated RTI - 105°C Melt Flow Adjustable for Application UL File Number: E51193

Appearance Colors Available

| Typical Properties | Nominal Value | Units | Test Method |
|---|----------------------|-------------------|--------------------|
| Physical | | | |
| Melt Flow Rate, (300 °C/2.16 kg) | 10 | g/10 min | ASTM D1238 |
| Density - Specific Gravity | 1.21 | g/cm ³ | ASTM D792 |
| Mechanical | | | |
| Tensile Elongation at Yield | 3.8 | % | ASTM D638 |
| Tensile Strength at Yield | 60 | MPa | ASTM D638 |
| Tensile Strength at Break | 48 | MPa | ASTM D638 |
| Flexural Modulus | 2420 | MPa | ASTM D790 |
| Tensile Elongation at Break | >60 | % | ASTM D638 |
| Tensile Modulus | 2400 | MPa | ASTM D638 |
| Flexural Strength | 90.3 | MPa | ASTM D790 |
| Impact | | | |
| Charpy Impact Strength - Notched | | | |
| (23 °C) | 20 | kJ/m ² | ISO 179 |
| (-30 °C) | 11 | kJ/m ² | ISO 179 |
| Notched Izod Impact | | | |
| (23 °C, 3.18 mm) | 350 | J/m | ASTM D256 |
| (-30 °C) | 120 | J/m | ASTM D256 |
| Hardness | | | |
| Rockwell Hardness, (R-Scale) | 122 | | ASTM D785 |
| Thermal | | | |
| Deflection Temperature Under Load Unannealed (264 psi) | 121 | °C | ASTM D648 |
| Deflection Temperature Under Load Unannealed (66 psi) | 133 | °C | ASTM D648 |
| Coefficient of Linear Thermal Expansion (CLTE), Flow (TMA), (-40 to 95 °C) | 6.1E-5 | cm/cm/°C | ASTM E831 |
| Coefficient of Linear Thermal Expansion (CLTE), Perpendicular (TMA), (-40 to 95 °C) | 6.3E-5 | cm/cm/°C | ASTM E831 |
| RTI Elec | 105 | °C | UL 746B |
| RTI Imp | 105 | °C | UL 746B |
| RTI Str | 105 | °C | UL 746B |
| Electrical | | | |

| | | |
|-----------------------|----------------|-----------|
| Volume Resistivity | 4.6E+15 ohm*cm | ASTM D257 |
| UL Information | | |
| UL File Number | E51193 | |
| Outdoor Suitability | | UL 746C |

| Injection Parameters | Nominal Value | Units |
|-----------------------------|----------------------|--------------|
| Drying Temperature | 121 | °C |
| Suggested Max Moisture | <0.020 | % |
| Nozzle Temperature | 249 to 288 | °C |
| Screw Speed | 40 to 75 | rpm |
| Processing (Melt) Temp | 249 to 288 | °C |
| Front Temperature | 249 to 288 | °C |
| Middle Temperature | 249 to 288 | °C |
| Rear Temperature | 249 to 277 | °C |
| Back Pressure | <0.689 | MPa |
| Mold Temperature | 71 to 104 | °C |