

ColorFast® FRPCT5050

Americhem - Polycarbonate + Polyester

General Information

Product Description

FRPCT5050 is an unreinforced high flow injection molding grade of PC and copolyester alloy with good impact resistance, dimensional stability and heat resistance.

General

| | | | |
|-------------------|--------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Additive | • Flame Retardant | | |
| Features | • Excellent Colorability | • Flame Retardant | |
| Uses | • Automotive Applications • Closures • Consumer Applications | • Engineering Parts • Household Goods • Housings | • Industrial Applications • Industrial Parts • Office Automation Equipment |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

 Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|---------------------------------------------------------|------------------|----------|-------------|
| Density / Specific Gravity | 1.17 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (260°C/3.8 kg) | 30 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow | 5.0E-3 to 7.0E-3 | in/in | ASTM D955 |
| Water Absorption (24 hr) | 0.15 | % | ASTM D570 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength ² (Yield) | 8200 | psi | ASTM D638 |
| Tensile Strength ² (Break) | 7000 | psi | ASTM D638 |
| Tensile Elongation (Yield) | 6.0 | % | ASTM D638 |
| Tensile Elongation ² (Break) | 120 | % | ASTM D638 |
| Flexural Modulus ² | 270000 | psi | ASTM D790 |
| Flexural Strength ² | 9000 | psi | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (73°F) | 10 | ft-lb/in | ASTM D256 |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale) | 108 | | ASTM D785 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 225 | °F | ASTM D648 |
| Electrical | Nominal Value | Unit | Test Method |
| Dielectric Strength (0.125 in, air) | 470 | V/mil | ASTM D149 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating | HB | | UL 94 |

Processing Information

| Injection | Nominal Value | Unit |
|---------------------|---------------|------|
| Drying Temperature | 250 | °F |
| Drying Time | 3.0 to 4.0 | hr |
| Suggested Shot Size | 40 to 60 | % |
| Rear Temperature | 450 to 540 | °F |
| Middle Temperature | 460 to 550 | °F |
| Front Temperature | 460 to 560 | °F |
| Nozzle Temperature | 470 to 550 | °F |



| | |
|------------------------|---------------------|
| Processing (Melt) Temp | 480 to 550 °F |
| Mold Temperature | 160 to 200 °F |
| Back Pressure | 50.0 to 100 psi |
| Screw Speed | 40 to 70 rpm |
| Vent Depth | 1.0E-3 to 3.0E-3 in |

Notes

¹ Typical properties: these are not to be construed as specifications.

² 2.0 in/min

