

**ColorRx® FRPCT1100RX**

Americhem - Polycarbonate + PBT

**General Information**
**Product Description**

FRPCT1100RX is an injection molding grade of polycarbonate and polybutylene terephthalate (PC+PBT) alloy with improved impact and chemical resistance. It consists of a Brominated FR system with a flame rating of V-0/1.5mm and 5VA/2.5mm. Suitable for healthcare applications.

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Features	• Biocompatible	• Ethylene Oxide Sterilizable	• Radiation Sterilizable
	• E-beam Sterilizable	• Excellent Colorability	• Steam Sterilizable
Uses	• Closures	• Housings	• Surgical Instruments
	• Connectors	• Industrial Parts	
	• Engineering Parts	• Medical/Healthcare Applications	
UL File Number	• E178307		
Forms	• Pellets		
Processing Method	• Injection Molding		

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.27		ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/3.8 kg)	10	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	7.0E-3 to 0.010	in/in	ASTM D955
Water Absorption (24 hr)	0.10	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup> (Yield)	8500	psi	ASTM D638
Tensile Strength <sup>2</sup> (Break)	8000	psi	ASTM D638
Tensile Elongation <sup>2</sup> (Yield)	4.0	%	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	80	%	ASTM D638
Flexural Modulus <sup>2</sup>	360000	psi	ASTM D790
Flexural Strength <sup>2</sup>	14000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	13	ft·lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	122		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	180	°F	ASTM D648
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in	V-0		
0.10 in	5VA		

**Processing Information**

Injection	Nominal Value	Unit
Drying Temperature	250	°F
Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	12	hr
Suggested Shot Size	40 to 80	%



Rear Temperature	460 to 490 °F
Middle Temperature	470 to 520 °F
Front Temperature	480 to 530 °F
Nozzle Temperature	470 to 520 °F
Processing (Melt) Temp	480 to 530 °F
Mold Temperature	150 to 190 °F
Back Pressure	50.0 to 100 psi
Screw Speed	50 to 80 rpm
Vent Depth	1.0E-3 to 1.5E-3 in

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 2.0 in/min

