

**ColorFast® FRPC101UV**

Americhem - Polycarbonate

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

FRPC101UV is a high flow injection molding grade of transparent polycarbonate (PC) with high impact and UV resistance. It consists of a non-halogenated FR system and passes the FAA flammability requirements for FAR25.853a vertical Bunsen burner test.

**General**

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

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.21		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	12 to 16	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup> (Yield)	9000	psi	ASTM D638
Tensile Strength <sup>2</sup> (Break)	8000	psi	ASTM D638
Tensile Elongation <sup>2</sup> (Yield)	7.0	%	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	90	%	ASTM D638
Flexural Modulus <sup>2</sup>	325000	psi	ASTM D790
Flexural Strength <sup>2</sup>	13200	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	12	ft-lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	70		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed, 0.250 in)	270	°F	ASTM D648
Flammability	Nominal Value	Unit	Test Method
FAA Flammability (60.0 mil)	< 12.0	sec	FAR 25.853(a)

**Processing Information**

Injection	Nominal Value	Unit
Drying Temperature	250	°F
Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	48	hr
Suggested Shot Size	40 to 60	%
Rear Temperature	520 to 560	°F
Middle Temperature	540 to 580	°F
Front Temperature	560 to 600	°F
Nozzle Temperature	550 to 590	°F



Processing (Melt) Temp	560 to 600 °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

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

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

