

ColorFast® FRPC500UV

Americhem - Polycarbonate

General Information
Product Description

FRPC500UV 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		
Features	• Excellent Colorability	• Flame Retardant	
Uses	• Automotive Applications	• Engineering Parts	• Industrial Applications
	• Closures	• Household Goods	• Industrial Parts
	• Consumer Applications	• Housings	• Office Automation Equipment
UL File Number	• E178307		
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.21		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	18	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 ² (Yield)	8700	psi	ASTM D638
Tensile Strength ² (Break)	7000	psi	ASTM D638
Tensile Elongation ² (Yield)	7.0	%	ASTM D638
Tensile Elongation ² (Break)	90	%	ASTM D638
Flexural Modulus ²	320000	psi	ASTM D790
Flexural Strength ²	13000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	11	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

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

² 2.0 in/min

