

ColorFast® FRPC400

Americhem - Polycarbonate

General Information

Product Description

FRPC400 is a medium viscosity injection molding grade of transparent polycarbonate with high impact resistance. It consists of a non-halogenated FR system with a flame rating of V-0/3mm.

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
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)	11	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)	9000	psi	ASTM D638
Tensile Elongation ² (Yield)	7.0	%	ASTM D638
Tensile Elongation ² (Break)	90	%	ASTM D638
Flexural Modulus ²	325000	psi	ASTM D790
Flexural Strength ²	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
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index (CTI) (0.118 in)	PLC 3		UL 746A
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.12 in)	V-0		UL 94

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

