

ColorFast® ACR100

Americhem - Polymethyl Methacrylate Acrylic

General Information
Product Description

High heat injection molding grade of PMMA

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Features	• Excellent Colorability
Uses	• Consumer Applications • Household Goods • Industrial Applications • Industrial Parts
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.19		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	3.7	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	2.0E-3 to 6.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield)	10000	psi	ASTM D638
Tensile Elongation ² (Break)	6.0	%	ASTM D638
Flexural Modulus ²	450000	psi	ASTM D790
Flexural Strength ²	15000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	0.40	ft·lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	93		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed, 0.250 in)	216	°F	ASTM D648

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	48	hr
Suggested Shot Size	40 to 60	%
Rear Temperature	410 to 450	°F
Front Temperature	430 to 470	°F
Nozzle Temperature	420 to 460	°F
Processing (Melt) Temp	430 to 470	°F
Mold Temperature	150 to 190	°F
Back Pressure	100 to 200	psi
Screw Speed	40 to 70	rpm
Vent Depth	1.0E-3 to 3.0E-3	in

