

Durolon® IR2500

Polycarbonate

Unigel Plásticos

Message:

Injection molding low flow rate polycarbonate with enhanced mold release performance.
Blow molding Injection-Blow process for bottles up to 330 ml.
Product complies with FDA 21 CFR 177.1580.

General Information			
Additive	demoulding		
Features	Definition, high		
	Compliance of Food Exposure		
	Good demoulding performance		
	Medium viscosity		
Uses	Bottle		
	Medical/nursing supplies		
Agency Ratings	FDA 21 CFR 177.1580		
UL File Number	E102385		
Appearance	Available colors		
	Clear/transparent		
Forms	Particle		
Processing Method	Blow molding		
	Injection blowing molding		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	8.0	g/10 min	ASTM D1238, ISO 1133
Molding Shrinkage - Flow	0.50 - 0.70	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.23	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
Class m	75		ASTM D785
Class r	120		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2300	MPa	ASTM D638, ISO 527-2
Tensile Strength			ASTM D638, ISO 527-2
Yield	73.0	MPa	ASTM D638, ISO 527-2

Fracture	78.0	MPa	ASTM D638, ISO 527-2
Tensile Elongation (Break)	110	%	ASTM D638, ISO 527-2
Flexural Modulus	2350	MPa	ASTM D790, ISO 178
Flexural Strength	95.0	MPa	ASTM D790, ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.20 mm)	830	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	135	°C	ASTM D648, ISO 75-2/A
CLTE - Flow	6.5E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength (1.60 mm)	29	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	2.91		ASTM D150
1 MHz	2.85		ASTM D150
Dissipation Factor			ASTM D150
60 Hz	6.6E-4		ASTM D150
1 MHz	9.2E-3		ASTM D150
Arc Resistance	110	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.00 mm)	HB		UL 94
Glow Wire Ignition Temperature (3.20 mm)	960	°C	IEC 60695-2-13
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.586		ASTM D542, ISO 489
Transmittance	89.0	%	ASTM D1003
Additional Information			
Volume Resistivity, ASTM D257: >1E16 ohm-cmArc Resistance, ASTM D495: 100 to 120 sec			
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	4.0	hr	
Rear Temperature	270	°C	
Middle Temperature	280	°C	
Front Temperature	290	°C	
Nozzle Temperature	280	°C	
Processing (Melt) Temp	240 - 300	°C	
Mold Temperature	80.0 - 100	°C	

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