

Integra™ PC 5025IR

PolySource, LLC - Polycarbonate

General Information
Product Description

PC 5025IR polycarbonate resin offers superior mechanical properties, good dimensional stability and high electrical performance, allowing it to be widely used for electrical, electronic, appliance, automotive and optical industries. PC 5025IR is a polycarbonate resin grade which has high low temperature impact strength in combination with superior mechanical and physical property.

CHARACTERISTICS

- Superior low temperature impact resistance
- Workable under a wide range of temperatures
- Good dimensional stability
- Good weather resistance
- Good flow-ability
- High electrical performance
- Low moisture absorbency

APPLICATIONS

- PC 5025IR resin grade is used for electric and electronic applications, food contact material and etc.
- Medium viscosity. Transparent colors only.

General

Material Status	• Commercial: Active
Availability	• North America
Features	<ul style="list-style-type: none"> • Food Contact Acceptable • Good Dimensional Stability • Good Electrical Properties • Good Flow • Good Weather Resistance • Low Moisture Absorption • Low Temperature Impact Resistance • Medium Viscosity
Uses	<ul style="list-style-type: none"> • Appliance Components • Automotive Applications • Electrical/Electronic Applications • Non-specific Food Applications • Optical Applications
Appearance	• Clear/Transparent
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.20		ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	10	g/10 min	ASTM D1238
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3	in/in	ASTM D955
Water Absorption (Equilibrium)	0.15	%	ASTM D570
Mechanical			
Tensile Strength (Yield)	10200	psi	ASTM D638
Tensile Elongation (Break)	120	%	ASTM D638
Flexural Modulus	299000	psi	ASTM D790
Flexural Strength (Yield)	12500	psi	ASTM D790
Impact			
Notched Izod Impact (73°F, 0.125 in)	17	ft-lb/in	ASTM D256
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	275	°F	ASTM D648
CLTE - Flow	2.8E-5 to 3.9E-5	in/in/°F	ASTM D696
Electrical			
Volume Resistivity	4.0E+16	ohms·cm	ASTM D257
Dielectric Strength	760	V/mil	ASTM D149
Arc Resistance	120	sec	ASTM D495



Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	V-2		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248	°F
Drying Time	3.0 to 5.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	473 to 518	°F
Middle Temperature	500 to 545	°F
Front Temperature	527 to 572	°F
Nozzle Temperature	527 to 590	°F
Processing (Melt) Temp	527 to 590	°F
Mold Temperature	149 to 221	°F
Back Pressure	36.3 to 102	psi
Screw Speed	40 to 70	rpm
Vent Depth	7.9E-4 to 3.1E-3	in

Notes

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

