

Polystyrene Product Selection Guide

High Impact Polystyrene Grades

		Melt Flow Rate	Vicat Softening Temp.	Notched Izod	Specular Gloss (60°)		
	Product	(g/10 min)	(ºF)	(ft-lb/inch)	(%)	Key Attributes	Recommended Applications
High Impact Resins	5300	2.6	214	2.2	15	Excellent ESCR and good toughness; Low gloss; No zinc stearate	Food Packaging; Indoor signs; Retail displays; Printed materials
	5310	2.4	217	2.1	15	Excellent ESCR and good toughness; Low gloss	Food Packaging; Indoor signs; Retail displays; Printed materials
	5400	3.0	212	2.6	25	Good balance of ESCR and toughness; Trims cleanly; Low gloss	Cosmetic, foodservice, retail and medical packaging
	5410	3.0	210	2.8	15	Good printability; Good ESCR; Low gloss	Retail & other signs; Medical and cosmetic packaging
	5601	8.0	208	2.8	45	Great balance of toughness and rigidity in injection molded parts	Electronics housings; Housewares; Appliance parts
	5801	14.5	199	3.0	55	Excellent processibility; High toughness	Thin wall, multi-cavity molding applications; Masterbatches
	6200	3.1	212	3.8	60	Excellent toughness; Designed for deep draw thermoforming	Deep draw drink cups and containers; Signs; Packaging
	6210	2.9	214	2.8	60	Great balance of toughness and rigidity	Single use foodservice; Profile extrusion; Portion containers
	6220	3.0	210	3.8	90	Excellent toughness; High gloss; Designed for deep draw thermoforming	Single use foodservice; Profile extrusion; Thin wall thermoformed containers; Portion containers
Refrigeration Impact Resins	7120	2.3	217	2.1	10	Great low temperature impact; ESCR to food	Refrigerator and freezer liners; Picnic cooler liners
	7800	3.6	214	1.5	95	Superior gloss; Good processibility	Co-extruded high gloss cap layer for durable goods
Specialty High Impact Resins	9500	3.5	212	3.4	35	Exceptional ESCR and impact strength	Single use foodservice and food packaging

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Crystal Polystyrene Grades

	Product	Melt Flow Rate (g/10 min)	Vicat Softening Temp. (ºF)	Tensile Strength, Yield (psi)	Available with External Lubricant?	Key Attributes	Recommended Applications
High Heat Crystal Resins	1200	1.6	228	7,600	Yes	High molecular weight and strength; Excellent clarity	Direct injection foam; Biaxially oriented sheet; Glazing sheet
	1290	1.6	228	7,600	Yes	Low residual styrene monomer; Low oligomers	Direct injection foam; Biaxially oriented sheet; Glazing sheet
	1300	3.0	223	7,100	Yes	High heat resistance and strength	Electronics packaging and medical labware; Cosmetic cases
	1600	6.0	223	6,800	No	Balanced strength, flow and heat resistance; No zinc stearate	Foam extrusion; Injection molding
	1611	6.0	222	6,800	Yes	Good balance of flow, strength and set- up; Blue edge effect	Consumer electronics; Housewares; Cosmetic Packaging
	1621	6.0	223	6,800	Yes	Easy flow material with excellent moldability; Excellent clarity and set-up time	Applications requiring fast processing; Medical applications; Coextruded gloss cap over HIPS
	1900	23.0	221	5,000	No	High flow and heat resistance; No zinc stearate	Foam extrusion; Masterbatches
General Purpose Crystal Resins	2600	3.4	205	6,400	Yes	Good balance of strength and ease of processing	Extrusion & thermoforming; Injection molded parts; Retail displays
	2610	3.6	208	6,000	No	Excellent toughness; High melt strength; Good flow and processability	Blending with HIPS; Extruded packaging; Thermoforming; Appliance accessory parts
	3100	10.0	213	6,500	Yes	Good balance of flow and set-up properties	Single use foodservice; Electronics pkg.; HIPS gloss cap
	3190	10.0	213	6,500	No	Low residual styrene monomer; White color; High clarity	Single use foodservice; Great for blending
	3600	14.5	209	6,200	Yes	Excellent flow characteristics for thin wall and complex parts	Single use cutlery and consumer goods; Masterbatches

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