



Wednesday, August 30, 2023

PRL ABS-GP-IM

Polymer Resources Ltd. - Acrylonitrile Butadiene Styrene

Units English ▼

Action	Legend (Open)
 	

General Information

General		
Material Status	• Commercial: Active	
Availability	• North America	
Additive	• Impact Modifier	
Features	• General Purpose	• Impact Modified
RoHS Compliance	• RoHS Compliant	
Forms	• Pellets	
Processing Method	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.02		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	3.0 to 7.0	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 Modulus (0.125 in)	280000	psi	ASTM D638
Tensile Strength (Yield, 0.125 in)	5500	psi	ASTM D638
Tensile Strength (Break, 0.125 in)	4400	psi	ASTM D638
Tensile Elongation (Yield, 0.125 in)	2.0	%	ASTM D638
Tensile Elongation (Break, 0.125 in)	25	%	ASTM D638
Flexural Modulus (0.125 in)	274000	psi	ASTM D790
Flexural Strength (0.125 in)	8510	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	5.0	ft·lb/in	ASTM D256
Notched Izod Impact Strength			ISO 180/1A
-22°F	4.3	ft·lb/in ²	
73°F	13	ft·lb/in ²	
Gardner Impact (0.125 in)	250	in·lb	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)	190	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	180	°F	ASTM D648
Vicat Softening Temperature	210	°F	ASTM D1525 ²

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180 to 200	°F
Drying Time	2.0 to 5.0	hr
Drying Time, Maximum	8.0	hr
Rear Temperature	380 to 410	°F
Middle Temperature	420 to 460	°F
Front Temperature	440 to 490	°F
Processing (Melt) Temp	450 to 525	°F
Mold Temperature	120 to 180	°F

Notes

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

² Rate B (120°C/h), Loading 2 (50 N)

The information contained herein is based on our best knowledge and we believe it to be true and accurate. Please read all statements and recommendations in conjunction with our conditions of sale, which apply to all goods sold by us. Statements

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concerning possible uses of materials described in the patent. Lot data is available upon request. The user of this material must make their own evaluations to determine the suitability of this material from a technical as well as health, safety and environmental standpoint. This data is not intended for specification purposes.