Plexiglas® V052i-58208RB

Polymethyl Methacrylate Acrylic

Altuglas International of Arkema Inc.

Message:

Plexiglas® V052i-58208RB is a lightly impact modified thermoplastic acrylic resin formulated for injection molding. This grade has the same properties as Plexiglas® V052i but his formulated in a deep jet black color that eliminates the need for painting. It is characterized by its excellent chemical and heat resistance as well a good melt flow and excellent mold release properties. It is a tougher resin than Plexiglas® V052 allowing improved fabrication. It offers an excellent balance between melt flow and increased resistance to breakage, while providing weatherability superior to that provided by other high-impact plastics. Moldflow simulation data is available.

General Information	
Additive	Impact Modifier
Features	BPA Free Good Color Stability Good Dimensional Stability Good Mold Release Good Thermal Stability Good Toughness Good UV Resistance Good Weather Resistance Impact Modified Low Shrinkage Scratch Resistant
Uses	Automotive Exterior Parts
RoHS Compliance	RoHS Compliant
Appearance	Black Opaque
Forms	Pellets
Processing Method	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.18	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	3.2	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.30 to 0.60	%	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	86		ASTM D785

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2830	MPa	ASTM D638
Tensile Strength (Yield)	63.4	MPa	ASTM D638

Tensile Elongation (Break)	18	%	ASTM D638
Flexural Modulus	2830	MPa	ASTM D790
Flexural Strength (Yield)	103	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	16	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load [1]			ASTM D648
0.45 MPa, Annealed	102	°C	
1.8 MPa, Annealed	96.7	°C	
Vicat Softening Temperature			
--	110	°C	ASTM D1525 [2]
--	98.9	°C	ASTM D1525 [3]
Thermal Conductivity	0.19	W/m/K	ASTM C177
Flammability	**Nominal Value**		**Test Method**
Flame Rating	HB		UL 94
Additional Information	**Nominal Value**		**Test Method**
ASTM Classification	PMMA 0231V3		ASTM D788
Injection	**Nominal Value**	**Unit**	
Drying Temperature	82.2 to 87.8	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.10	%	
Suggested Shot Size	50	%	
Suggested Max Regrind	20	%	
Rear Temperature	216	°C	
Middle Temperature	221	°C	
Front Temperature	227	°C	
Nozzle Temperature	221	°C	
Processing (Melt) Temp	< 271	°C	
Mold Temperature	65.6 to 87.8	°C	
Injection Rate	Fast		
Back Pressure	0.689	MPa	
Screw Speed	50 to 100	rpm	
Screw L/D Ratio	15.0:1.0 to 20.0:1.0		
Screw Compression Ratio	2.0:1.0 to 2.5:1.0		
Vent Depth	0.051	mm	
NOTE			
1.	Annealing cycle: 4hrs @ 176°F		
2.	Rate A (50°C/h), Loading 1 (10 N)		
3.	Rate A (50°C/h), Loading 2 (50 N)		

Recommended distributors for this material

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