

Starex GR-4017

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

General Information

General

Filler / Reinforcement	• Glass Fiber
Uses	• Automotive Applications

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.17		ASTM D792
Density (Natural)	1.17	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	17	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	17	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	2.0E-3 to 4.0E-3	in/in	ASTM D955
Ash Content	17	%	ISO 3451
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	754000	psi	ISO 527-1/50
Tensile Strength ² (Yield)	11100	psi	ASTM D638
Tensile Stress (Yield)	13500	psi	ISO 527-2/50
Tensile Stress (Break)	13500	psi	ISO 527-2/50
Tensile Strain (Break)	3.0	%	ISO 527-2/50
Flexural Modulus ³	725000	psi	ASTM D790
Flexural Modulus ⁴	841000	psi	ISO 178
Flexural Strength ³	16800	psi	ASTM D790
Flexural Stress ⁴	19000	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (73°F)	4.1	ft·lb/in ²	ISO 179/1eA
Notched Izod Impact (73°F, 0.125 in)	1.5	ft·lb/in	ASTM D256
Notched Izod Impact Strength ⁵ (73°F)	3.8	ft·lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	117		ASTM D785
Rockwell Hardness (R-Scale)	117		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed, 0.157 in	221	°F	ISO 75-2/B
Deflection Temperature Under Load 66 psi, Annealed, 0.157 in	228	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed, 0.252 in	212	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	212	°F	ISO 75-2/A
Deflection Temperature Under Load 264 psi, Annealed, 0.157 in	221	°F	ISO 75-2/A

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature			
--	225	°F	ISO 306/B120
--	221	°F	ISO 306/B50

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	194 to 212	°F
Hot Air Dryer	194 to 212	°F
Drying Time		
Desiccant Dryer	2.0 to 4.0	hr
Hot Air Dryer	2.0 to 4.0	hr
Suggested Max Moisture	< 0.10	%
Rear Temperature	374 to 392	°F
Middle Temperature	392 to 419	°F
Front Temperature	419 to 455	°F
Nozzle Temperature	437 to 491	°F
Mold Temperature	104 to 176	°F
Injection Pressure	7110 to 21300	psi
Back Pressure	71.1 to 284	psi
Screw Speed	50 to 150	rpm

Injection Notes

Hot Runner Temperature: 235 to 215°C