

Starex GR-4615

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

General Information

General

Filler / Reinforcement • Glass Fiber

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.15		ASTM D792
Density (Natural)	1.15	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	22	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	22	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	2.3E-3 to 3.2E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	2.3E-3 to 3.2E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.23 to 0.32	%	
Flow : 0.0787 in	0.23 to 0.32	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	654000	psi	ASTM D638
Tensile Modulus	682000	psi	ISO 527-1/50
Tensile Strength ² (Yield)	10700	psi	ASTM D638
Tensile Stress (Yield)	10900	psi	ISO 527-2/50
Tensile Strength ² (Break)	9670	psi	ASTM D638
Tensile Stress (Break)	10900	psi	ISO 527-2/50
Tensile Elongation ² (Break)	3.0	%	ASTM D638
Tensile Strain (Break)	3.0	%	ISO 527-2/50
Flexural Modulus ³	754000	psi	ASTM D790
Flexural Modulus ⁴	827000	psi	ISO 178
Flexural Strength ³	14200	psi	ASTM D790
Flexural Stress ⁴	16000	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (73°F)	3.8	ft·lb/in ²	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	1.0	ft·lb/in	
73°F, 0.250 in	0.92	ft·lb/in	
Notched Izod Impact Strength ⁵ (73°F)	2.9	ft·lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	110		ASTM D785
Rockwell Hardness (R-Scale)	110		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	223	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	221	°F	

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed, 0.252 in	210	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	207	°F	ISO 75-2/A

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	176	°F
Hot Air Dryer	176	°F
Drying Time		
Desiccant Dryer	2.0 to 3.0	hr
Hot Air Dryer	2.0 to 4.0	hr
Suggested Max Moisture	< 0.050	%
Rear Temperature	338 to 374	°F
Middle Temperature	392 to 410	°F
Front Temperature	428 to 446	°F
Nozzle Temperature	464	°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: 240°C