

ALPHALAC SF510

High Impact Polystyrene

LG Chem Ltd.

Message:

Alphalac of LG chemical is high functionality styrene resin and offers excellent properties and processibility .This product can be accepted as the replacement of general ABS resins.

General Information			
UL YellowCard	E67171-248496		
Features	Impact resistance, high		
	Workability, good		
	High liquidity		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	12	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 - 0.80	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	100		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	1670	MPa	ASTM D638
Tensile Strength ² (Yield)	24.5	MPa	ASTM D638
Tensile Elongation ³			ASTM D638
Yield	5.0	%	ASTM D638
Fracture	60	%	ASTM D638
Flexural Modulus ⁴	2240	MPa	ASTM D790
Flexural Strength ⁵ (Yield)	39.2	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C, 3.18 mm	49	J/m	ASTM D256
-30°C, 6.35 mm	39	J/m	ASTM D256
23°C, 3.18 mm	130	J/m	ASTM D256
23°C, 6.35 mm	98	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 6.35mm	85.0	°C	ASTM D648
0.45 MPa, annealed, 6.35mm	90.0	°C	ASTM D648
1.8 MPa, unannealed, 6.35mm	80.0	°C	ASTM D648

1.8 MPa, annealed, 6.35mm	90.0	°C	ASTM D648
Vicat Softening Temperature			
--	99.0	°C	ASTM D1525 ⁶
--	86.0	°C	ASTM D1525 ⁷
Electrical	Nominal Value		Test Method
Arc Resistance	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 1		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 0		UL 746
Hot-wire Ignition (HWI)	PLC 3		UL 746
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
1.59 mm	HB		UL 94
3.18 mm	HB		UL 94
Additional Information			
Flammability, IEC 707, 1/8 in, mm/min: FH3-28			
Injection	Nominal Value	Unit	
Drying Temperature	70.0 - 80.0	°C	
Drying Time	1.0 - 2.0	hr	
Rear Temperature	190 - 210	°C	
Middle Temperature	205 - 220	°C	
Front Temperature	215 - 230	°C	
Nozzle Temperature	205 - 230	°C	
Processing (Melt) Temp	215 - 230	°C	
Mold Temperature	40.0 - 70.0	°C	
Injection Pressure	60.0 - 100	MPa	
Holding Pressure	50.0 - 80.0	MPa	
Back Pressure	10.0 - 30.0	MPa	
Screw Speed	50 - 100	rpm	
NOTE			
1.	50 mm/min		
2.	50 mm/min		
3.	50 mm/min		
4.	15 mm/min		
5.	50 mm/min		
6.	压 力1 (10N)		
7.	载荷2 (50N)		

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