

TECHNICAL DATA SHEET

STAREX GR-4017

Lotte Chemical Corporation

ABS

Processing

Injection molding

Delivery Form

Pellets, Natural color

Applications

Automotive

Processing/Physical Characteristics	Value	Unit	Standard
Melt flow index, MFI	17.2	g/10min	ISO 1133
Temperature	220	°C	
Load	10	kg	
Melt flow index, MFI	17.2	g/10min	ASTM D 1238
Temperature	220	°C	
Load	10	kg	
Mold shrinkage, MD	0.003	mm/mm	ASTM D 955
Mechanical Properties	Value	Unit	Standard
Tensile modulus	5200	MPa	ISO 527
Yield stress	93	MPa	ISO 527
Stress at break	93	MPa	ISO 527
Strain at break	3	%	ISO 527
Poisson's ratio	0.35		ISO 527
Flexural modulus, 23°C	5800	MPa	ISO 178
Flexural strength	131	MPa	ISO 178
Charpy notched impact strength, +23°C	8.6	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	8	kJ/m ²	ISO 180/1A
Rockwell hardness	R 117		ISO 2039-2
Tensile strength at yield	77	MPa	ASTM D 638
Flexural modulus	5000	MPa	ASTM D 790
Flexural strength	120	MPa	ASTM D 790
Rockwell hardness	R 117		ASTM D 785
Izod impact notched, 1/8 in	79	J/m	ASTM D 256

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Thermal Properties	Value	Unit	Standard
Temp. of deflection under load, 1.80 MPa	100	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	105	°C	ISO 75-1/-2
Vicat softening temperature, B	105	°C	ISO 306
DTUL @ 264 psi	100	°C	ASTM D 648
Other Properties	Value	Unit	Standard
Density	1170	kg/m ³	ISO 1183
Density	1170	kg/m ³	ASTM D 792
Processing Recommendation Injection Molding	Value	Unit	Standard
Pre-drying - temperature	90 - 100	°C	
Pre-drying - time	2 - 4	h	
Processing humidity	≤0.1	%	
Melt temperature	215 - 235	°C	
Mold temperature	40 - 80	°C	
Zone 1	190 - 200	°C	
Zone 2	200 - 215	°C	
Zone 3	215 - 235	°C	
Nozzle temperature	225 - 255	°C	
Screw speed	50 - 150	rpm	
Injection pressure	49 - 150	MPa	
Back pressure	0.5 - 2	MPa	