

TECHNICAL DATA SHEET

STAREX GR-4020

Lotte Chemical Corporation
ABS-GF

Processing

Injection molding

Delivery Form

Pellets, Natural color

Processing/Physical Characteristics	Value	Unit	Standard
Melt flow index, MFI	7	g/10min	ISO 1133
Temperature	220	°C	
Load	10	kg	
Melt flow index, MFI	7	g/10min	ASTM D 1238
Temperature	220	°C	
Load	10	kg	
Mold shrinkage, MD	0.002	mm/mm	ASTM D 955
Mechanical Properties	Value	Unit	Standard
Tensile modulus	5600	MPa	ISO 527
Yield stress	85	MPa	ISO 527
Stress at break	101	MPa	ISO 527
Strain at break	2.8	%	ISO 527
Poisson's ratio	0.35		ISO 527
Flexural modulus, 23°C	5700	MPa	ISO 178
Flexural strength	110	MPa	ISO 178
Charpy notched impact strength, +23°C	9	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	8	kJ/m ²	ISO 180/1A
Rockwell hardness	R 114		ISO 2039-2
Tensile modulus	5300	MPa	ASTM D 638
Tensile strength at yield	78	MPa	ASTM D 638
Tensile strength at break	93	MPa	ASTM D 638
Elongation at break	2.9	%	ASTM D 638
Flexural modulus	4800	MPa	ASTM D 790
Flexural strength	88	MPa	ASTM D 790

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Mechanical Properties	Value	Unit	Standard
Rockwell hardness	R 112		ASTM D 785
Izod impact notched, 1/8 in	59	J/m	ASTM D 256
Thermal Properties	Value	Unit	Standard
Temp. of deflection under load, 1.80 MPa	101	°C	ISO 75-1/-2
Vicat softening temperature, B	107	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3	mm	
UL 94 flame rating	HB		UL 94
Thickness tested	1.5	mm	
DTUL @ 264 psi	101	°C	ASTM D 648
Other Properties	Value	Unit	Standard
Density	1180	kg/m ³	ISO 1183
Density	1180	kg/m ³	ASTM D 792
Processing Recommendation Injection Molding	Value	Unit	Standard
Pre-drying - temperature	80	°C	
Pre-drying - time	2 - 4	h	
Processing humidity	≤0.05	%	
Melt temperature	235	°C	
Mold temperature	40 - 80	°C	
Zone 1	180 - 190	°C	
Zone 2	200 - 210	°C	
Zone 3	220 - 230	°C	
Nozzle temperature	240	°C	
Screw speed	50 - 150	rpm	
Injection pressure	49 - 250	MPa	
Back pressure	0.5 - 2	MPa	