

STAREX GR-4005

ABS-GF

Lotte Chemical Corporation

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt flow index, MFI	18	g/10min	ISO 1133
Temperature	220	°C	-
Load	10	kg	-
ASTM Data			
Melt Flow Index, MFI	15	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	Test Standard
ISO Data			
Tensile Modulus	3100	MPa	ISO 527
Yield stress	58	MPa	ISO 527
Stress at break	54	MPa	ISO 527
Strain at break	3.3	%	ISO 527
Flexural modulus, 23°C	3300	MPa	ISO 178
Flexural strength	90	MPa	ISO 178
Charpy notched impact strength, +23°C	9.1	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	7.6	kJ/m ²	ISO 180/1A
Rockwell hardness	R 110	-	ISO 2039-2
ASTM Data			
Tensile Modulus	2900	MPa	ASTM D 638
Tensile Strength at Yield	59	MPa	ASTM D 638
Tensile Strength at Break	47	MPa	ASTM D 638
Elongation at Break	3.6	%	ASTM D 638
Flexural Modulus	3000	MPa	ASTM D 790
Flexural Strength	87	MPa	ASTM D 790
Rockwell Hardness	R 110	-	ASTM D 785

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	89	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	100	°C	ISO 75-1/-2
Vicat softening temperature, B	103	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.6	mm	-
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	1.8	mm	-
ASTM Data			
UL 94 Flame rating	HB	-	UL 94
Thickness tested	1.6	mm	-
DTUL @ 66 psi	103	°C	ASTM D 648
DTUL @ 264 psi	96	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Density	1090	kg/m ³	ISO 1183
Density	1080	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test 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	-

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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	-

Characteristics**Processing**

Injection Molding

Regional Availability

North America, Europe, Asia Pacific

Delivery form

Pellets, Natural Color