

**STAREX GR-4020L**

ABS-GF

Lotte Chemical Corporation

<b>Processing/Physical Characteristics</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Melt flow index, MFI	<b>9</b>	g/10min	ISO 1133
Temperature	<b>220</b>	°C	-
Load	<b>10</b>	kg	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	<b>7</b>	g/10min	ASTM D 1238
Temperature	<b>220</b>	°C	-
Load	<b>10</b>	kg	-
Mold Shrinkage, MD	<b>0.002</b>	mm/mm	ASTM D 955

<b>Mechanical properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Tensile Modulus	<b>5600</b>	MPa	ISO 527
Yield stress	<b>88</b>	MPa	ISO 527
Stress at break	<b>88</b>	MPa	ISO 527
Strain at break	<b>2.5</b>	%	ISO 527
Flexural modulus, 23°C	<b>6400</b>	MPa	ISO 178
Flexural strength	<b>125</b>	MPa	ISO 178
Charpy notched impact strength, +23°C	<b>9</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, +23°C	<b>7.9</b>	kJ/m <sup>2</sup>	ISO 180/1A
Rockwell hardness	<b>R 112</b>	-	ISO 2039-2
<b>ASTM Data</b>			
Tensile Modulus	<b>5300</b>	MPa	ASTM D 638
Tensile Strength at Yield	<b>88</b>	MPa	ASTM D 638
Tensile Strength at Break	<b>86</b>	MPa	ASTM D 638
Elongation at Break	<b>2.5</b>	%	ASTM D 638
Flexural Modulus	<b>5300</b>	MPa	ASTM D 790
Flexural Strength	<b>110</b>	MPa	ASTM D 790
Rockwell Hardness	<b>R 112</b>	-	ASTM D 785

<b>Thermal properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	<b>97</b>	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	<b>103</b>	°C	ISO 75-1/-2
Vicat softening temperature, B	<b>103</b>	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	<b>HB</b>	class	IEC 60695-11-10
Thickness tested	<b>1.5</b>	mm	-
Burning behav. at thickness h	<b>HB</b>	class	IEC 60695-11-10
Thickness tested	<b>3.0</b>	mm	-
<b>ASTM Data</b>			
UL 94 Flame rating	<b>HB</b>	-	UL 94
Thickness tested	<b>1.5</b>	mm	-
DTUL @ 66 psi	<b>104</b>	°C	ASTM D 648
DTUL @ 264 psi	<b>100</b>	°C	ASTM D 648

<b>Other properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Density	<b>1190</b>	kg/m <sup>3</sup>	ISO 1183
Density	<b>1180</b>	kg/m <sup>3</sup>	ASTM D 792

<b>Processing Recommendation Injection Molding</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Pre-drying - Temperature	<b>80</b>	°C	-
Pre-drying - Time	<b>2 - 4</b>	h	-
Processing humidity	<b>≤0.05</b>	%	-
Melt temperature	<b>235</b>	°C	-
Mold temperature	<b>40 - 80</b>	°C	-
Zone 1	<b>180 - 190</b>	°C	-
Zone 2	<b>200 - 210</b>	°C	-

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Zone 3	<b>220 - 230</b>	°C	-
Nozzle temperature	<b>240</b>	°C	-
Screw speed	<b>50 - 150</b>	rpm	-
Injection pressure	<b>49 - 250</b>	MPa	-
Back pressure	<b>0.5 - 2</b>	MPa	-

**Characteristics****Processing**

Injection Molding

**Regional Availability**

North America, Europe, Asia Pacific

**Delivery form**

Pellets, Natural Color