STAREX SP-0170

ABS — Lotte Chemical Corporation

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt flow index, MFI	**6.4**	g/10min	ISO 1133
Temperature	**220**	°C	-
Load	**10**	kg	-
Molding shrinkage, parallel	**0.5**	%	ISO 294-4, 2577
ASTM Data			
Melt Flow Index, MFI	**6.4**	g/10min	ASTM D 1238
Temperature	**220**	°C	-
Load	**10**	kg	-
Mold Shrinkage, MD	**0.005**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**1900**	MPa	ISO 527
Yield stress	**40**	MPa	ISO 527
Stress at break	**31**	MPa	ISO 527
Strain at break	**19**	%	ISO 527
Flexural modulus, 23°C	**1900**	MPa	ISO 178
Flexural strength	**60**	MPa	ISO 178
Charpy notched impact strength, +23°C	**34**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**34**	kJ/m²	ISO 180/1A
Rockwell hardness	**R 101**	-	ISO 2039-2
ASTM Data			
Tensile Strength at Yield	**38**	MPa	ASTM D 638
Elongation at Break	**50**	%	ASTM D 638
Flexural Modulus	**1700**	MPa	ASTM D 790
Flexural Strength	**53**	MPa	ASTM D 790
Rockwell Hardness	**R 94**	-	ASTM D 785
Izod Impact notched, 1/8 in	**470**	J/m	ASTM D 256
Izod Impact notched, 1/4 in	**380**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**81**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**93**	°C	ISO 75-1/-2
Vicat softening temperature, B	**99**	°C	ISO 306
ASTM Data			
DTUL @ 264 psi	**88**	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Density	**1040**	kg/m³	ISO 1183
Density	**1040**	kg/m³	ASTM D 792

Processing Recommendation Extrusion	Value	Unit	Test Standard
Type of extrusion	**pipe/tube**	-	-
Pre-drying - Temperature	**80**	°C	-
Pre-drying - Time	**2 - 4**	h	-
Processing humidity	**≤0.05**	%	-
Melt temperature	**230**	°C	-
Mold temperature	**40 - 80**	°C	-
Zone 1	**160 - 180**	°C	-
Zone 2	**190 - 200**	°C	-
Zone 3	**210 - 220**	°C	-
Nozzle temperature	**230**	°C	-

Characteristics

Processing
Injection Molding, Pipe/Tube Extrusion

Delivery form
Pellets, Natural Color

Regional Availability
North America, Europe, Asia Pacific