

Group	Grade	Characteristic	Application
Sheet (Extrusion)	ABS-75	High Impact Strength, High Hardness	The refrigerator inner liner, and refrigerator door liner, consistent with Cyclopentane gas
	ABS-75 T	Thin layer sheet, High Hardness, proper for Thermoforming	Refrigeration industries, Jacuzzi tub, Electrical part
High Impact	90	High Impact Strength, extrusion	Automobile parts, helmets, boats, suitcase

TYPICAL ABS PROCESSING CONDITIONS

DRYING: It is recommended that GBPC ABS Resins be dried at (80-85°C) for 3 hours.

An extruder with one-stage or two-stage venting and a Gear pump is recommended for the extrusion of the sheet. compression ratios should be between 2.5/1 and 3.0/1 for a single stage screw and L/D ratios > 30 (L/D < 30) is typical.

Zone 7(°C)	Zone 6(°C)	Zone 5(°C)	Zone 4(°C)	Zone 3(°C)	Zone 2(°C)	Zone 1(°C)
225-245	225-245	225-245	225-245	220-240	210-230	190-210
Screen Pack Mesh (2 Layer)			Center Die Zone(°C)	Mid Die Zone (°C)	Outer Die Zone(°C)	Adapter(°C)
#40 / #80 / #80 / #40			220-240	220-240	230-245	225-245
Head pressure			Die Lip Thickness(mm)	Nip Roll Bottom(°C)	Nip Roll Middle(°C)	Nip Roll Top(°C)
140 bar			1.5-4.5	60-80	70-90	60-80



Properties	Test Method (ASTM)	Test Condition	Unit	Extrusion ABS		
				Sheet Grade		High Impact
				ABS-75	ABS-75T	ABS-90
Izod Impact	D - 256	6.4 mm, Notched	KJ/m ²	27	23	33
Melt Flow Index	D - 1238	220°C, 10 Kg	gr/10 min	5	5.5	9
Rockwell Hardness	D - 785	R-scale	Rockwell	107	108	95
Heat Deflection Temp	D - 648	0.45 Mpa	°C	88	85	82
Vicat Softening Temp	D - 1525	10 N	°C	96	95	92
Tensile Strength	D - 638	23°C, 50 mm/min	Kg/cm ²	410	470	380
Tensile Elongation	D - 638	23°C, 50 mm/min	%	18	18	20
Flexural Strength	D - 790	23°C, 2.8 mm/min	Kg/cm ²	640	670	550
Flexural Modulus	D - 790	23°C, 2.8 mm/min	Kg/cm ²	19000	20000	16000
Specific Gravity	D - 792	23°C	g/cm ³	1.04	1.04	1.04
Molding Shrinkage	D - 955	-	%	0.4 - 0.7	0.4 - 0.7	0.4 - 0.7
Flammability	UL 94	½ inch (3.2 mm)	-	HB	HB	HB

Note 1) These are typical property values, not specifications.

Note 2) In pre-colored products, the values could slightly differ from table values.

Note 3) Values are measured at 23°C and in relative humidity (RH) of 50% on injection molded specimens of natural grade compliant with ASTM standards