

HI-121 (High Impact Grade)

Application

Vacuum cleaners, mixer

Feature

LG high impact ABS HI-121 provides a wide range of selection from those ultra-high impact strength to general impact strength depending upon requirements of our customers.

Properties	Test Method	Test Condition	Unit	Value
Physical				
Specific Gravity	ASTM D792		g/cc	1.04
Molding Shrinkage	ASTM D955		%	0.4~0.7
Melt Flow Index	ASTM D1238(G)	200°C/ 5kg	g/10min	2
	–	220°C/ 10kg	g/10min	21
	ASTM D1238(I)	230°C/ 3.8kg	g/10min	7
Mechanical				
Tensile Strength at yield	ASTM D638	50mm/min	kg/cm ²	480
			lb/in ²	6,800
Tensile Modulus	ASTM D638	1mm/min	kg/cm ²	21,200
			lb/in ²	
Elongation at yield	ASTM D638	50mm/min	%	5
Elongation at break	ASTM D638	50mm/min	%	40
Flexural Strength at yield	ASTM D790	15mm/min	kg/cm ²	720
			lb/in ²	10,240
Flexural Modules	ASTM D790	15mm/min	kg/cm ²	24,700
			lb/in ²	351,000
Izod Impact Strength (Noched)	ASTM D256	1/4" , '23°C	kg·cm/cm	35
		1/4" , '-30°C	kg·cm/cm	13
		1/8" , '23°C	kg·cm/cm	40
		1/8" , '-30°C	kg·cm/cm	13
Rockwell Hardness	ASTM D785	R-Scale	–	108
Thermal				
Heat Deflection Temp	ASTM D648	18.5kg/cm ² , 1/4" (annealed)	°C	92
			°F	198
		18.5kg/cm ² , 1/4" (unannealed)	°C	87
			°F	189
		4.6kg/cm ² , 1/4" (annealed)	°C	94
			°F	201
4.6kg/cm ² , 1/4" (unannealed)	°C	91		
	°F	196		
Vicat Softening Temp	ASTM D1525	5kg, 50°C/h	°C	93
			°F	199
Flammability	UL94	1/8"	class	HB
		1/10"	class	
		1/16"	class	HB
	IEC707	1/8"	mm/min	FH3-34
		1/16"	mm/min	