

HI-100 (High Impact Grade)

Application

Helmets, pipe & fitting for high impact

Feature

LG high impact ABS HI-100 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	1.02
Molding Shrinkage	ASTM D955		%	0.4~0.7
Melt Flow Index	ASTM D1238(G)	200°C/ 5kg	g/10min	1
	–	220°C/ 10kg	g/10min	11
	ASTM D1238(I)	230°C/ 3.8kg	g/10min	4
Mechanical				
Tensile Strength at yield	ASTM D638	50mm/min	kg/cm ²	380
			lb/in ²	5,400
Tensile Modulus	ASTM D638	1mm/min	kg/cm ²	16,400
			lb/in ²	
Elongation at yield	ASTM D638	50mm/min	%	6
Elongation at break	ASTM D638	50mm/min	%	40
Flexural Strength at yield	ASTM D790	15mm/min	kg/cm ²	550
			lb/in ²	7,800
Flexural Modules	ASTM D790	15mm/min	kg/cm ²	18,000
			lb/in ²	260,000
Izod Impact Strength (Noched)	ASTM D256	1/4" , '23°C	kg·cm/cm	44
		1/4" , '-30°C	kg·cm/cm	31
		1/8" , '23°C	kg·cm/cm	47
		1/8" , '-30°C	kg·cm/cm	35
Rockwell Hardness	ASTM D785	R-Scale	–	92
Thermal				
Heat Deflection Temp	ASTM D648	18.5kg/cm ² , 1/4" (annealed)	°C	87
			°F	189
		18.5kg/cm ² , 1/4" (unannealed)	°C	85
			°F	185
		4.6kg/cm ² , 1/4" (annealed)	°C	90
			°F	194
4.6kg/cm ² , 1/4" (unannealed)	°C	88		
	°F	190		
Vicat Softening Temp	ASTM D1525	5kg, 50°C/h	°C	90
			°F	196
Flammability	UL94	1/8"	class	HB
		1/10"	class	
		1/16"	class	HB
	IEC707	1/8"	mm/min	FH3-33
		1/16"	mm/min	