

# HG-173 (High Gloss Grade)

## Application

Washer, vaccum cleaner, telephone set

## Feature

LG high gloss ABS HG-173 has been developed through the advanced technologies of LG chemical. It has outstanding fluidity, rigidity and scratch resistance as well as impact strength.

Properties	Test Method	Test Condition	Unit	Value
<b>Physical</b>				
Specific Gravity	ASTM D792		g/cc	1.05
Molding Shrinkage	ASTM D955		%	0.4~0.7
Melt Flow Index	ASTM D1238(G)	200℃/ 5kg	g/10min	2
	—	220℃/ 10kg	g/10min	23
	ASTM D1238(I)	230℃/ 3.8kg	g/10min	8
<b>Mechanical</b>				
Tensile Strength at yield	ASTM D638	50mm/min	kg/cm <sup>2</sup>	500
			lb/in <sup>2</sup>	7,100
Tensile Modulus	ASTM D638	1mm/min	kg/cm <sup>2</sup>	24,000
			lb/in <sup>2</sup>	
Elongation at yield	ASTM D638	50mm/min	%	6
Elongation at break	ASTM D638	50mm/min	%	14
Flexural Strength at yield	ASTM D790	15mm/min	kg/cm <sup>2</sup>	780
			lb/in <sup>2</sup>	11,000
Flexural Modules	ASTM D790	15mm/min	kg/cm <sup>2</sup>	25,500
			lb/in <sup>2</sup>	362,000
Izod Impact Strength (Noched)	ASTM D256	1/4" , '23℃	kg·cm/cm	24
		1/4" , '-30℃	kg·cm/cm	11
		1/8" , '23℃	kg·cm/cm	26
		1/8" , '-30℃	kg·cm/cm	12
Rockwell Hardness	ASTM D785	R-Scale	—	110
<b>Thermal</b>				
Heat Deflection Temp	ASTM D648	18.5kg/cm <sup>2</sup> , 1/4" (annealed)	℃	91
			°F	196
		18.5kg/cm <sup>2</sup> , 1/4" (unannealed)	℃	86
			°F	187
		4.6kg/cm <sup>2</sup> , 1/4" (annealed)	℃	91
			°F	196
4.6kg/cm <sup>2</sup> , 1/4" (unannealed)	℃	89		
	°F	192		
Vicat Softening Temp	ASTM D1525	5kg, 50℃/h	℃	95
			°F	203
Flammability	UL94	1/8"	class	HB
		1/10"	class	
		1/16"	class	HB
	IEC707	1/8"	mm/min	FH3-30
		1/16"	mm/min	