

# XR-401 (Heat Resistance Grade)

## Application

Electronic & Electrical Parts(Vacuum Cleaner Housing, Microwave Oven Door Frame)

## Feature

LG heat resistance ABS XR-401 shows high heat resistance as well as physical properties such as impact strength,rigidity,and processability. It is most suitable for electric and electronic components and automotive parts that require heat resistance.

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	1
	–	220℃/ 10kg	g/10min	9
	ASTM D1238(I)	230℃/ 3.8kg	g/10min	3
<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>	22,400
			lb/in <sup>2</sup>	
Elongation at yield	ASTM D638	50mm/min	%	6
Elongation at break	ASTM D638	50mm/min	%	25
Flexural Strength at yield	ASTM D790	15mm/min	kg/cm <sup>2</sup>	810
			lb/in <sup>2</sup>	11,500
Flexural Modules	ASTM D790	15mm/min	kg/cm <sup>2</sup>	25,000
			lb/in <sup>2</sup>	355,000
Izod Impact Strength (Noched)	ASTM D256	1/4" , '23℃	kg·cm/cm	22
		1/4" , '-30℃	kg·cm/cm	8
		1/8" , '23℃	kg·cm/cm	23
		1/8" , '-30℃	kg·cm/cm	9
Rockwell Hardness	ASTM D785	R-Scale	–	110
<b>Thermal</b>				
Heat Deflection Temp	ASTM D648	18.5kg/cm <sup>2</sup> , 1/4" (annealed)	℃	101
			°F	214
		18.5kg/cm <sup>2</sup> , 1/4" (unannealed)	℃	96
			°F	207
		4.6kg/cm <sup>2</sup> , 1/4" (annealed)	℃	110
			°F	230
4.6kg/cm <sup>2</sup> , 1/4" (unannealed)	℃	105		
	°F	220		
Vicat Softening Temp	ASTM D1525	5kg, 50℃/h	℃	103
			°F	217
Flammability	UL94	1/8"	class	HB
		1/10"	class	
		1/16"	class	HB
	IEC707	1/8"	mm/min	FH3-33
		1/16"	mm/min	