

ASTM Property

starex®	Grade	GR-4010
	Resin Type	ABS/GF

Home Appliances

Item	Measuring Method	Condition	Unit	Value
Physical				
Specific Gravity	ASTM D792	Natural or representative color	-	1.15
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min	7.8
Mold Shrinkage(MD)	ASTM D955	Flow at 3.2mm(MD)	%	0.1-0.3
ASH content	ASTM D5630	-	%	9.7
Mechanical				
Tensile Strength at Yield	ASTM D638	5mm/min	kgf/cm ²	740
Tensile Strain at break	ASTM D638	5mm/min	%	3.4
Tensile Modulus	ASTM D638	5mm/min	kgf/cm ²	36000
Tensile Strength at break	ASTM D638	5mm/min	kgf/cm ²	700
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm ²	1000
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	41000
Izod Impact Strength(notched)	ASTM D256	1/4 inch at 23°C	kgf·cm/cm	8.7
Izod Impact Strength(notched)	ASTM D256	1/8 inch at 23°C	kgf·cm/cm	9
Rockwell Hardness	ASTM D785	R-Scale	-	114
Thermal				
Heat Deflection Temperature	ASTM D648	18.56kgf/cm ² , 6.4mm	°C	100
Heat Deflection Temperature	ASTM D648	4.6kgf/cm ² , 6.4mm	°C	106
VICAT Softening Temperature	ISO 306	B/50	°C	106
VICAT Softening Temperature	ISO 306	B/120	°C	108
Flammability				
Flammability	UL94	HB	mm	1.5,3.0,6.0

1. The above figures are the representative values based on NP, which may vary from color to color, and can be used as a reference only for the purpose of selecting materials.

2. The above figures are basic guidelines for selecting materials; therefore, they are not regarded as the official specifications for materials involved, and cannot be used for the purpose of designing a mold.
3. The above values can be adjusted in accordance with processing conditions, and the specific change in value is allowed only within a limited range in which adjustment has no adverse or negative impact on the final product.

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