

ASTM Property

starex®	Grade	GR-4020
	Resin Type	ABS/GF

Home Appliances

Item	Measuring Method	Condition	Unit	Value
Physical				
Specific Gravity	ASTM D792	Natural or representative color	-	1.18
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min	7
Mold Shrinkage(MD)	ASTM D955	Flow at 3.2mm(MD)	%	0.1-0.3
ASH content	ASTM D5630	-	%	20
Mechanical				
Tensile Strength at Yield	ASTM D638	5mm/min	kgf/cm ²	800
Tensile Strain at break	ASTM D638	5mm/min	%	2.9
Tensile Modulus	ASTM D638	5mm/min	kgf/cm ²	54000
Tensile Strength at break	ASTM D638	5mm/min	kgf/cm ²	950
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm ²	900
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	48500
Izod Impact Strength(notched)	ASTM D256	1/8 inch at 23°C	kgf-cm/cm	6
Rockwell Hardness	ASTM D785	R-Scale	-	112
Thermal				
Heat Deflection Temperature	ASTM D648	18.56kgf/cm ² , 6.4mm	°C	101
VICAT Softening Temperature	ISO 306	B/50	°C	107
VICAT Softening Temperature	ISO 306	B/120	°C	111
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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