

ASTM Property

starex®	Grade	GR-4030
	Resin Type	ABS/GF

Home Appliances

Item	Measuring Method	Condition	Unit	Value
Physical				
Specific Gravity	ASTM D792	Natural or representative color	-	1.27
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min	5.4
Mold Shrinkage(MD)	ASTM D955	Flow at 3.2mm(MD)	%	0.1-0.3
ASH content	ASTM D5630	-	%	31
Mechanical				
Tensile Strength at Yield	ASTM D638	5mm/min	kgf/cm ²	1040
Tensile Strain at break	ASTM D638	5mm/min	%	2.6
Tensile Modulus	ASTM D638	5mm/min	kgf/cm ²	70000
Tensile Strength at break	ASTM D638	5mm/min	kgf/cm ²	1000
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm ²	1300
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	79000
Izod Impact Strength(notched)	ASTM D256	1/4 inch at 23°C	kgf·cm/cm	6.5
Izod Impact Strength(notched)	ASTM D256	1/8 inch at 23°C	kgf·cm/cm	7.3
Rockwell Hardness	ASTM D785	R-Scale	-	112
Thermal				
Heat Deflection Temperature	ASTM D648	18.56kgf/cm ² , 6.4mm	°C	103
Heat Deflection Temperature	ASTM D648	4.6kgf/cm ² , 6.4mm	°C	108
VICAT Softening Temperature	ISO 306	B/50	°C	107
VICAT Softening Temperature	ISO 306	B/120	°C	110
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.

Information inserted in this document such as data, statements, representative values, etc. are provided solely for customer convenience. It does not expressly or impliedly guarantee anything regarding the safety or practicability of the (1) materials, (2) products, and/or (3) design that utilizes recommendations or proposals, of LOTTE Chemical. Furthermore, nothing in the contents of this document shall have any legal binding effect, and especially, the representative value is simply for reference and is not a minimum value that has legal binding effect.

Whether materials and/or products of LOTTE Chemical and/or a design that uses or utilizes LOTTE Chemical' recommendations or proposals are (is) compatible with individual uses shall be determined solely by each user and such user shall be solely responsible for any results, including but not limited to, any and all loss and damages incurred due to such uses. Users must implement and verify all testing and analyses for proving the safety and compatibility of final products that have been created or altered by using LOTTE Chemical' materials or products. The data and values inserted and/or contained in this document may be changed due to quality improvement of the product without any prior notification.

※ The last update date : 05/13/2014