

# ABS RS670

Extrusion Molding Grade

## Description

Chemical Resistnace to Cyclopentane, Low Specific Gravity

## Application

Refrigerator Inner Liner

Properties	Test Condition	Test Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity		ASTM D792	-	1.04
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.4~0.7
Melt Flow Rate	220°C/10kg	ASTM D1238	g/10min	4.5
<b>Mechanical</b>				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm <sup>2</sup>	500
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	>5
@ Break	50mm/min		%	35
Tensile Modulus, 3.2mm	1mm/min	ASTM D638	kg/cm <sup>2</sup>	
Flexural Strength, 3.2mm	15mm/min	ASTM D790	kg/cm <sup>2</sup>	790
Flexural Modulus, 3.2mm	15mm/min	ASTM D790	kg/cm <sup>2</sup>	25,500
Tear Strength @ Break	50mm/min	ASTM D624	kg/cm	
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23 °C		kg·cm/cm	30
	-30 °C		kg·cm/cm	11
IZOD Impact Strength, 3.2mm		ASTM D256		
(Notched)	23 °C		kg·cm/cm	32
	-30 °C		kg·cm/cm	12
Rockwell Hardness	R-Scale	ASTM D785	-	106
<b>Thermal</b>				
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		°C	89
	4.6kg		°C	94
Heat Deflection Temperature, 6.4mm		ASTM D648		
(annealed)	18.6kg		°C	90
	4.6kg		°C	96
Vicat Softening Temperature		ASTM D1525		
	5kg, 50 °C/h		°C	96
	1kg, 120 °C/h		°C	
Flammability		UL94		
1.5mm			class	HB
3.0mm			class	HB

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.

Values given should not be interpreted as specification and not be used for part or tool design.

All properties, except melt flow rate are measured on injection molulded specimens and after 48 hours storage at 23 °C, 50% relative humidity.

Updated : 14-Jun-17

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### Processing Guide (Extrusion Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	70 ~ 80
Drying Time		hrs	3 ~ 4
Recommended Moisture Content		%	Max. 0.1
Melt Temperature		℃	200 ~ 250
Barrel Temperature	Zone 1	℃	180 ~ 210
	Zone 2	℃	190 ~ 230
	Zone 3	℃	200 ~ 250
	Zone 4	℃	200 ~ 250
Adapter Temperature		℃	200 ~ 250
Die Temperature		℃	200 ~ 250
Roll Stack Tempeature	Top	℃	70 ~ 100
	Middle	℃	70 ~ 90
	Bottom	℃	60 ~ 90

Note) Recommend initial lower temperatures settings to avoid material degradation/hang-up in die & purge material from extruder prior to shutdown.

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