

ABS RS650

Extrusion Molding Grade

Description

General Purpose

Application

Miscellaneous

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
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	6
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm ²	485
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	>5
@ Break	50mm/min		%	35
Tensile Modulus, 3.2mm	1mm/min	ASTM D638	kg/cm ²	
Flexural Strength, 3.2mm	15mm/min	ASTM D790	kg/cm ²	800
Flexural Modulus, 3.2mm	15mm/min	ASTM D790	kg/cm ²	25,500
Tear Strength @ Break	50mm/min	ASTM D624	kg/cm	
IZOD Impact Strength, 6.4mm (Notched)		ASTM D256		
	23 °C		kg·cm/cm	30
	-30 °C		kg·cm/cm	
IZOD Impact Strength, 3.2mm (Notched)		ASTM D256		
	23 °C		kg·cm/cm	33
	-30 °C		kg·cm/cm	
Rockwell Hardness	R-Scale	ASTM D785	-	107
Thermal				
Heat Deflection Temperature, 6.4mm (Unannealed)		ASTM D648		
	18.6kg		°C	87
	4.6kg		°C	95
Heat Deflection Temperature, 6.4mm (annealed)		ASTM D648		
	18.6kg		°C	88
	4.6kg		°C	95
Vicat Softening Temperature		ASTM D1525		
	5kg, 50 °C/h		°C	95
	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 moulded 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 Temperature	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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