

ABS EF378L

Injection Molding

Description

Halogen-Free, Flame Retardant

Application

Office Appliances (parts of printer or copier)

Electric Parts Requiring Flame Retardancy

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ISO 1183	-	1.06
Molding Shrinkage (Flow), 3.2mm		ISO 2577	%	0.4~0.7
Melt Flow Rate	220 °C/10kg	ISO 1133	g/10min	55
Mechanical				
Tensile Strength, 4.0mm		ISO 527-1		
@ Yield	50mm/min		MPa	45
Tensile Elongation, 4.0mm		ISO 527-1		
@ Yield	50mm/min		%	>5
@ Break	50mm/min		%	15
Flexural Strength, 4.0mm	2mm/min	ISO 178	MPa	72
Flexural Modulus, 4.0mm	2mm/min	ISO 178	MPa	2,600
IZOD Impact Strength, 4.0mm (Notched)	23 °C	ISO 180	KJ/m ²	14
Rockwell Hardness	R-Scale	ISO 2039	-	105
Thermal				
Heat Deflection Temperature, 6.4mm (Unannealed)	1.8MPa	ISO 75	°C	75
Vicat Softening Temperature	5kg, 50 °C/h	ISO 306	°C	86
Flammability		UL94		
0.8mm			class	V-2
3.1mm			class	V-2
Relative Temperature Index		UL 746B		
Electrical			°C	60
Mechanical with Impact			°C	60
Mechanical without Impact			°C	60

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 molded specimens and after 48 hours storage at 23 °C, 50% relative humidity.

Updated : 1-Jul-14

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Processing Guide (Injection Molding)

Processing Parameters	Unit	Value	
Drying Temperature	°C	70 ~ 80	
Drying Time	hrs	3 ~ 4	
Minimum Moisture Content	%	0.01	
Melt Temperature	°C	200 ~ 230	
Cylinder Temperature	Rear	°C	180 ~ 200
	Middle	°C	190 ~ 210
	Front	°C	200 ~ 220
Nozzle Temperature	°C	200 ~ 230	
Mold Temperature	°C	40 ~ 60	
Back Pressure	kg/cm ²	300 ~ 600	
Screw Speed	rpm	30 ~ 60	

Note) Back Pressure & Screw Speed are only mentioned as general guidelines.

These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.

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