SolutionPartner

LG Chem

ABS AF312B

Injection Molding Grade

Description

Flame Retardant, TBBA

Application

Electric parts, IT/OA device
TV, monitor housing

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.18
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.4~0.7
Melt Flow Rate	220℃/10kg	ASTM D1238	g/10min	58
Water Absorption	23℃, 24hrs	ASTM D570	%	0.3~0.6
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm^2	440
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	5
@ Break	50mm/min		%	20
Tensile Modulus, 3.2mm	1mm/min	ASTM D638	kg/cm^2	-
Flexural Strength, 6.4mm	15mm/min	ASTM D790	kg/cm^2	710
Flexural Modulus, 6.4mm	15mm/min	ASTM D790	kg/cm^2	26,000
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	23
	-30℃		kg·cm/cm	-
IZOD Impact Strength, 3.2mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	27
	-30℃		kg·cm/cm	-
Rockwell Hardness	R-Scale	ASTM D785	-	104
Thermal				
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		℃	76
	4.6kg		℃	84
Vicat Softening Temperature		ASTM D1525		
	5kg, 50℃/h		℃	84
Flammability		UL94		
1.0mm			class	V-2
2.1mm			class	V-0,5VB
2.5mm			class	V-0,5VA
3.0mm			class	V-0,5VA
Relative Temperature Index		UL 746B		
Electrical			℃	75
Mechanical with Impact			℃	70
Mechanical without Impact			℃	75
Optical				
Gloss	45°	ASTM D2457	-	100.0

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Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	70 ~ 80
Drying Time		hrs	2 ~ 4
Minimum Moisture Content		%	0.01
Melt Temperature		℃	200 ~ 230
Cylinder Temperature	Rear	℃	170 ~ 190
	Middle	℃	180 ~ 200
	Front	℃	190 ~ 210
Nozzle Temperature		℃	200 ~ 230
Mold Temperature		℃	40 ~ 60
Back Pressure		kg/cm^2	5 ~ 10
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.

Processing Guide (Extrusion Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	
Drying Time		hrs	
Minimum Moisture Content		%	
Melt Temperature		℃	
Barrel Temperature	Zone 1	℃	
	Zone 2	℃	
	Zone 3	℃	
	Zone 4	℃	
Adapter Temperature		℃	
Die Temperature		℃	
Roll Stack Tempeature	Top	℃	
	Middle	℃	
	Bottom	℃	

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

Updated : 7-Oct-13