SolutionPartner

LG Chem

ABS XR490

Injection Molding

Description

Heat Resistance, Low Emisson

Application

Automotives Interior Housing (Glove Box Etc)

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.07
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.4~0.7
Melt Flow Rate	220℃/10kg	ASTM D1238	g/10min	3
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm^2	480
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	>5
@ Break	50mm/min		%	15
Tensile Modulus, 3.2mm	1mm/min	ASTM D638	kg/cm^2	
Flexural Strength, 6.4mm	15mm/min	ASTM D790	kg/cm^2	780
Flexural Modulus, 6.4mm	15mm/min	ASTM D790	kg/cm^2	27,000
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	11
	-30℃		kg·cm/cm	6
IZOD Impact Strength, 3.2mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	12
	-30℃		kg·cm/cm	6
Rockwell Hardness	R-Scale	ASTM D785	-	114
Thermal				
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		℃	104
	4.6kg		℃	113
Vicat Softening Temperature		ASTM D1525		
	5kg, 50℃/h		℃	111
Flammability		UL94		HB
Relative Temperature Index		UL 746B		
Electrical			℃	
Mechanical with Impact			℃	
Mechanical without Impact			℃	

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℃, 50% relative humidty.

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Electrical

Comparative Tracking Index(CTI)	Solution A	IEC 60112	Volts	-
Surface Resistivity		IEC 60093	Ohm	-
Volume Resistivity	23℃	ASTM D257	Ohm·m	-
Arc Resistance	23℃	ASTM D495	Ohm·cm	-
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm	-
Dielectric Constant (10^6 Hz)	23℃	ASTM D150	sec	-

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℃, 50% relative humidty.

Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	80 ~ 90
Drying Time		hrs	3 ~ 4
Minimum Moisture Content		%	0.01
Melt Temperature		℃	230 ~ 250
Cylinder Temperature	Rear	℃	180 ~ 220
	Middle	℃	220 ~ 240
	Front	℃	230 ~ 250
Nozzle Temperature		℃	240 ~ 250
Mold Temperature		℃	60 ~ 80
Back Pressure		kg/cm^2	300~600
Screw Speed		rpm	50 ~ 100

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.