

ABS XR401

Injection Molding

Description

Heat Resistance

Application

Electric & Electronic Housing (Frame etc)

Automotives Interior & Exterior Housing (lamp housing etc)

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.05
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.4~0.7
Melt Flow Rate	220℃/10kg	ASTM D1238	g/10min	9
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm ²	500
Tensile Elongation, 3.2mm		ASTM D638		
@ Break	50mm/min		%	20
Flexural Strength, 3.2mm	15mm/min	ASTM D790	kg/cm ²	800
Flexural Modulus, 3.2mm	15mm/min	ASTM D790	kg/cm ²	26,000
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	25
	-30℃		kg·cm/cm	8
IZOD Impact Strength, 3.2mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	27
	-30℃		kg·cm/cm	9
Rockwell Hardness	R-Scale	ASTM D785	-	110
Thermal				
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		℃	97
	4.6kg		℃	106
Vicat Softening Temperature		ASTM D1525		
	5kg, 50℃/h		℃	106
Flammability		UL94		HB
Relative Temperature Index		UL 746B		
Electrical			℃	60
Mechanical with Impact			℃	60
Mechanical without Impact			℃	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 moulded specimens and after 48 hours storage at 23℃, 50% relative humidity.

Updated : 23-Feb-16

The information contained herein, including, but not limited to, data, statements and typical values, are given in good faith. LG Chem makes no warranty or guarantee, expressed or implied, (i) that the result described herein will be obtained under end - use conditions, or (ii) as to the effectiveness or safety of any design incorporating LG Chem materials, products, recommendations or advice. Further, any information contained herein shall not be construed as a part of legally binding offer. Especially, the typical values should be regarded as reference values only and not as binding minimum values. Each user bear full responsibility for making its own determination as to the suitability of LG Chem's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating LG Chem material or products will be safe and suitable for use under end - use conditions. The data contained herein can be changed without notice as a result of the quality improvement of the products.

ABS XR401

Injection Molding

Description

Heat Resistance

Application

Electric & Electronic Housing (Frame etc)

Automotives Interior & Exterior Housing (lamp housing etc)

Electrical

Comparative Tracking Index(CTI)	Solution A	IEC 60112	Volts	0
Surface Resistivity		IEC 60093	Ohm	-
Volume Resistivity	23℃	ASTM D257	Ohm·m	1.5E+01
Arc Resistance	23℃	ASTM D495	Ohm·cm	6
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm	33
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 humidity.

Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	80 ~ 90
Drying Time		hrs	3 ~ 4
Recommendable Moisture Content		%	0.05 below
Melt Temperature		℃	220 ~ 250
Cylinder Temperature	Rear	℃	180 ~ 200
	Middle	℃	200 ~ 220
	Front	℃	220 ~ 230
Nozzle Temperature		℃	220 ~ 230
Mold Temperature		℃	40~60
Back Pressure		kg/cm ²	10 ~ 30
Measuring Speed		rpm	Low speed

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.

Updated : 23-Feb-16

The information contained herein, including, but not limited to, data, statements and typical values, are given in good faith. LG Chem makes no warranty or guarantee, expressed or implied, (i) that the result described herein will be obtained under end - use conditions, or (ii) as to the effectiveness or safety of any design incorporating LG Chem materials, products, recommendations or advice. Further, any information contained herein shall not be construed as a part of legally binding offer. Especially, the typical values should be regarded as reference values only and not as binding minimum values. Each user bear full responsibility for making its own determination as to the suitability of LG Chem's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating LG Chem material or products will be safe and suitable for use under end - use conditions. The data contained herein can be changed without notice as a result of the quality improvement of the products.