XR401

Description

XR401 has well-balanced properties with high impact strength and high heat, targeted for injection molding

Key Features

Standard Purpose, High Heat Resistance, Paintability, High Impact Strength

Application

Air Conditioner,Air Purifier,Battery,Bumper,Cockpit,Coffee Machine,Consent,Dehumidifier,Delivery Robot,Door Trim,Electric Bike,Fan,Fan Heater,Fire Alarm,Food Serving Robot,Microwave Oven,Motorcycle,Multi Tap,Others,Outside Mirror,PCB (Printed Circuit Board),Power Tool,Security Alarm,Set-Top Box,Switch,Terminal Box,Tractor,UPS,Water Purifier,Wireless Router

Properties	Condition	Method	Unit	XR401
Physical				
Specific Gravity	23℃	ISO 1183		1.05
Mold Shrinkage	23℃, 3.2mm	ISO 294-4	%	0.4 ~ 0.7
Melt Flow Rate	220℃, 10kg	ISO 1133	g/10min	9
Mechanical				
Tensile Strength at Yield	23℃, 50mm/min, 4mm	ISO 527	MPa	49
Tensile Elongation at Yield	23℃, 50mm/min, 4mm	ISO 527	%, (Min)	5
Tensile Elongation at Break	23℃, 50mm/min, 4mm	ISO 527	%, (Min)	15
Flexural Strength	23℃, 2mm/min, 4mm	ISO 178	MPa	75
Flexural Modulus	23℃, 2mm/min, 4mm	ISO 178	MPa	2350
Izod Impact Strength	Notched, 4mm, 23℃	ISO 180/1A	kJ/m²	23
Izod Impact Strength	Notched, 4mm, -30℃	ISO 180/1A	kJ/m²	8
Charpy Impact Strength	Notched, 4mm, 23℃	ISO 179/1eA	kJ/m²	23
Charpy Impact Strength	Notched, 4mm, -30℃	ISO 179/1eA	kJ/m²	9
Rockwell Hardness	R-Scale	ISO 2039		110
Thermal				
Heat Deflection Temperature	Flatwise, 1.8MPa, 4mm, Unannealed	ISO 75	℃	88
Heat Deflection Temperature	Flatwise, 0.45MPa, 4mm, Unannealed	ISO 75	℃	100
Heat Deflection Temperature	Flatwise, 1.8MPa, 4mm, Annealed	ISO 75	℃	94
Heat Deflection Temperature	Flatwise, 0.45MPa, 4mm, Annealed	ISO 75	℃	105
Vicat Softening Temperature	50N, 50℃/h	ISO 306	℃	106
Flammability	1.5mm	UL 94		HB
Flammability	3.0mm	UL 94		HB

Note

Typical values can be used only for the purpose of selecting material, and there can be variation within normal tolerances for various colors.
Values given should not be interpreted as specification and not be used for designing part or tool.
All properties, except melt flow index are measured by injection molded specimens after 48 hours storage at 23℃, 50% relative humidity.

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Processing Guide (Injection Molding)

Processing Parameters	Unit	Value
Drying Temperature	℃	80 ~ 90
Drying Time	hrs	3 ~ 4
Injection Temperature	℃	220 ~ 260
Mold Temperature	℃	40 ~ 80
Screw Speed	rpm	30 ~ 60

Note

Injection Temperature & 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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