

XR404

Description

XR404 has well-balanced properties with high heat (VST≥112oC), targeted for injection molding

Key Features

Standard Purpose, High Heat Resistance, Paintability, High Stiffness

Application

Air Conditioner, Battery, Bumper, Cockpit, Coffee Machine, Consent, Delivery Robot, Drone, Electric Bike, Electric Rice Cooker, Exterior ETC, Fan, Fan Heater, Fire Alarm, Food Serving Robot, Hair Dryer, Interior ETC, Microwave Oven, Motorcycle, Multi Tap, Outside Mirror, PCB (Printed Circuit Board), Power Tool, Rear Combination Lamp, Security Alarm, Set-Top Box, Spoiler, Switch, Terminal Box, Tractor, UPS (Uninterruptible Power Supply System), Water Purifier, Wireless Router

Properties	Condition	Method	Unit	XR404
Physical				
Specific Gravity	23°C	ISO 1183		1.05
Mold Shrinkage	23°C, 3.2mm	ISO 294-4	%	0.4 ~ 0.7
Melt Flow Rate	220°C, 10kg	ISO 1133	g/10min	7
Mechanical				
Tensile Strength at Yield	23°C, 50mm/min, 4mm	ISO 527	MPa	54
Tensile Elongation at Break	23°C, 50mm/min, 4mm	ISO 527	%, (Min)	15
Tensile Modulus	23°C, 1mm/min, 4mm	ISO 527	MPa	2450
Flexural Strength	23°C, 2mm/min, 4mm	ISO 178	MPa	82
Flexural Modulus	23°C, 2mm/min, 4mm	ISO 178	MPa	2550
Izod Impact Strength	Notched, 4mm, 23°C	ISO 180/1A	kJ/m ²	13
Izod Impact Strength	Notched, 4mm, -30°C	ISO 180/1A	kJ/m ²	6
Charpy Impact Strength	Notched, 4mm, 23°C	ISO 179/1eA	kJ/m ²	12
Charpy Impact Strength	Notched, 4mm, -30°C	ISO 179/1eA	kJ/m ²	6
Rockwell Hardness	R-Scale	ISO 2039		114
Thermal				
Heat Deflection Temperature	Flatwise, 1.8MPa, 4mm, Unannealed	ISO 75	°C	93
Heat Deflection Temperature	Flatwise, 0.45MPa, 4mm, Unannealed	ISO 75	°C	101
Heat Deflection Temperature	Flatwise, 1.8MPa, 4mm, Annealed	ISO 75	°C	101
Heat Deflection Temperature	Flatwise, 0.45MPa, 4mm, Annealed	ISO 75	°C	106
Vicat Softening Temperature	50N, 50°C/h	ISO 306	°C	112
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°C, 50% relative humidity.

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Processing Guide (Injection Molding)

Processing Parameters	Unit	Value
Drying Temperature	°C	80 ~ 90
Drying Time	hrs	3 ~ 4
Injection Temperature	°C	220 ~ 290
Mold Temperature	°C	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.