

XR404

Description

XR404 has well-balanced properties with high heat (VST \geq 1120C), 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	ASTM D792		1.05
Mold Shrinkage	23°C, 3.2mm	ASTM D955	%	0.4 ~ 0.7
Melt Flow Index	220°C, 10kg	ASTM D1238	g/10min	7
Mechanical				
Tensile Strength at Yield	23°C, 50mm/min, 3.2mm	ASTM D638	MPa	52
Tensile Elongation at Break	23°C, 50mm/min, 3.2mm	ASTM D638	%, (Min)	15
Tensile Modulus	23°C, 50mm/min, 3.2mm	ASTM D638	MPa	2500
Flexural Strength	23°C, 10mm/min, 6.4mm	ASTM D790	MPa	84
Flexural Modulus	23°C, 10mm/min, 6.4mm	ASTM D790	MPa	2650
Izod Impact Strength	Notched, 3.2mm, 23°C	ASTM D256	J/m	160
Izod Impact Strength	Notched, 3.2mm, -30°C	ASTM D256	J/m	60
Izod Impact Strength	Notched, 6.4mm, 23°C	ASTM D256	J/m	140
Izod Impact Strength	Notched, 6.4mm, -30°C	ASTM D256	J/m	50
Rockwell Hardness	R-Scale	ASTM D785		112
Thermal				
Heat Deflection Temperature	Edgewise, 1.82MPa, 6.4mm, Unannealed	ASTM D648	°C	100
Heat Deflection Temperature	Edgewise, 0.46MPa, 6.4mm, Unannealed	ASTM D648	°C	108
Heat Deflection Temperature	Edgewise, 1.82MPa, 6.4mm, Annealed	ASTM D648	°C	106
Heat Deflection Temperature	Edgewise, 0.46MPa, 6.4mm, Annealed	ASTM D648	°C	111
Vicat Softening Temperature	50N, 50°C/h	ASTM D1525	°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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XR404 has well-balanced properties with high heat (VST \geq 112oC), targeted for injection molding

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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

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.