

WeConnectScience



XR409H

Description

XR409H has well-balanced properties with extremely high heat (VST≥116oC), targeted for injection molding

Key Features

Standard Purpose, Ultra High Heat Resistance, Non Painting

Application

Cockpit,Door Trim,Fire Alarm,Hair Dryer,Interior
ETC,Microwave Oven,Rear Combination Lamp,Set-Top
Box,Tractor,Wireless Router

Properties	Condition	Method	Unit	XR409H
Physical				
Specific Gravity	23°C	ASTM D792		1.06
Mold Shrinkage	23°C, 3.2mm	ASTM D955	%	0.4 ~ 0.7
Melt Flow Index	220°C, 10kg	ASTM D1238	g/10min	3
Mechanical				
Tensile Strength at Yield	23°C, 50mm/min, 3.2mm	ASTM D638	MPa	49
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	2400
Flexural Strength	23°C, 15mm/min, 3.2mm	ASTM D790	MPa	78
Flexural Modulus	23°C, 15mm/min, 3.2mm	ASTM D790	MPa	2550
Izod Impact Strength	Notched, 3.2mm, 23°C	ASTM D256	J/m	180
Izod Impact Strength	Notched, 3.2mm, -30°C	ASTM D256	J/m	70
Izod Impact Strength	Notched, 6.4mm, 23°C	ASTM D256	J/m	170
Izod Impact Strength	Notched, 6.4mm, -30°C	ASTM D256	J/m	60
Rockwell Hardness	R-Scale	ASTM D785		111
Thermal				
Heat Deflection Temperature	Edgewise, 1.82MPa, 6.4mm, Unannealed	ASTM D648	°C	106
Vicat Softening Temperature	50N, 50°C/h	ASTM D1525	°C	116
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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XR409H

Description

XR409H has well-balanced properties with extremely high heat ($VST \geq 1160^{\circ}\text{C}$), targeted for injection molding

Key Features

Standard Purpose, Ultra High Heat Resistance, Non Painting

Application

Cockpit, Door Trim, Fire Alarm, Hair Dryer, Interior
ETC, Microwave Oven, Rear Combination Lamp, Set-Top
Box, Tractor, Wireless Router

Processing Guide (Injection Molding)

Processing Parameters	Unit	Value
Drying Temperature	$^{\circ}\text{C}$	80 ~ 90
Drying Time	hrs	3 ~ 4
Injection Temperature	$^{\circ}\text{C}$	230 ~ 270
Mold Temperature	$^{\circ}\text{C}$	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.

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