

ER460

Description

ER460 is a Heat Resistant ABS product for injection molding, designed to have medium heat resistance.

Key Features

Medium Heat Resistance

Application

Motorcycle, Vacuum Cleaner, Electrical/Electronic Products, Miscellaneous Goods

Properties	Condition	Method	Unit	ER460
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	23
Mechanical				
Tensile Strength at Yield	23°C, 50mm/min, 4mm	ISO 527	MPa	45
Tensile Elongation at Break	23°C, 50mm/min, 4mm	ISO 527	%, (Min)	10
Tensile Modulus	23°C, 1mm/min, 4mm	ISO 527	MPa	2200
Flexural Strength	23°C, 2mm/min, 4mm	ISO 178	MPa	65
Flexural Modulus	23°C, 2mm/min, 4mm	ISO 178	MPa	2300
Izod Impact Strength	Notched, 4mm, 23°C	ISO 180/1A	kJ/m ²	22
Izod Impact Strength	Notched, 4mm, -30°C	ISO 180/1A	kJ/m ²	8
Charpy Impact Strength	Notched, 4mm, 23°C	ISO 179/1eA	kJ/m ²	22
Charpy Impact Strength	Notched, 4mm, -30°C	ISO 179/1eA	kJ/m ²	8
Rockwell Hardness	R-Scale	ISO 2039		112
Thermal				
Heat Deflection Temperature	Flatwise, 1.8MPa, 4mm, Unannealed	ISO 75	°C	82
Heat Deflection Temperature	Flatwise, 0.45MPa, 4mm, Unannealed	ISO 75	°C	89
Heat Deflection Temperature	Flatwise, 1.8MPa, 4mm, Annealed	ISO 75	°C	90
Heat Deflection Temperature	Flatwise, 0.45MPa, 4mm, Annealed	ISO 75	°C	95
Vicat Softening Temperature	50N, 50°C/h	ISO 306	°C	100
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.

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