

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	ASTM D792		1.04
Mold Shrinkage	23°C, 3.2mm	ASTM D955	%	0.4 ~ 0.7
Melt Flow Index	220°C, 10kg	ASTM D1238	g/10min	22
Mechanical				
Tensile Strength at Yield	23°C, 50mm/min, 3.2mm	ASTM D638	MPa	45
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	2450
Flexural Strength	23°C, 10mm/min, 6.4mm	ASTM D790	MPa	80
Flexural Modulus	23°C, 10mm/min, 6.4mm	ASTM D790	MPa	2550
Izod Impact Strength	Notched, 3.2mm, 23°C	ASTM D256	J/m	240
Izod Impact Strength	Notched, 3.2mm, -30°C	ASTM D256	J/m	100
Izod Impact Strength	Notched, 6.4mm, 23°C	ASTM D256	J/m	240
Izod Impact Strength	Notched, 6.4mm, -30°C	ASTM D256	J/m	100
Rockwell Hardness	R-Scale	ASTM D785		110
Thermal				
Heat Deflection Temperature	Edgewise, 1.82MPa, 6.4mm, Unannealed	ASTM D648	°C	92
Heat Deflection Temperature	Edgewise, 0.46MPa, 6.4mm, Unannealed	ASTM D648	°C	98
Heat Deflection Temperature	Edgewise, 1.82MPa, 6.4mm, Annealed	ASTM D648	°C	96
Heat Deflection Temperature	Edgewise, 0.46MPa, 6.4mm, Annealed	ASTM D648	°C	101
Vicat Softening Temperature	50N, 50°C/h	ASTM D1525	°C	99
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.