

WeConnectScience



ER400

Description

ER400 is a Heat Resistant ABS product for injection molding and extrusion, designed to have medium heat resistance, low TVOC, and low gloss level.

Key Features

Medium Heat Resistance, High Impact Strength

Application

Automotive Interior Parts, Automotive Exterior Parts, Sheet

Properties	Condition	Method	Unit	ER400
Physical				
Specific Gravity	23°C	ASTM D792		1.04
Mold Shrinkage	23°C, 3.2mm	ASTM D955	%	0.4 ~ 0.8
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	53
Tensile Elongation at Yield	23°C, 50mm/min, 3.2mm	ASTM D638	%, (Min)	5
Tensile Elongation at Break	23°C, 50mm/min, 3.2mm	ASTM D638	%, (Min)	10
Flexural Strength	23°C, 10mm/min, 6.4mm	ASTM D790	MPa	88
Flexural Modulus	23°C, 10mm/min, 6.4mm	ASTM D790	MPa	2650
Izod Impact Strength	Notched, 3.2mm, 23°C	ASTM D256	J/m	280
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	190
Izod Impact Strength	Notched, 6.4mm, -30°C	ASTM D256	J/m	90
Rockwell Hardness	R-Scale	ASTM D785		108
Thermal				
Heat Deflection Temperature	Edgewise, 1.82MPa, 6.4mm, Unannealed	ASTM D648	°C	93
Heat Deflection Temperature	Edgewise, 0.46MPa, 6.4mm, Unannealed	ASTM D648	°C	101
Heat Deflection Temperature	Edgewise, 1.82MPa, 6.4mm, Annealed	ASTM D648	°C	99
Heat Deflection Temperature	Edgewise, 0.46MPa, 6.4mm, Annealed	ASTM D648	°C	104
Vicat Softening Temperature	50N, 50°C/h	ASTM D1525	°C	102

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 (Extrusion)

Processing Parameters	Unit	Value
Drying Temperature	°C	80 ~ 90
Drying Time	hrs	3 ~ 4
Moisture Content	%	~ 0.01
Extrusion Temperature	°C	180 ~ 250

Note

Recommend initial lower temperatures settings to avoid material degradation/hang-up in die & purge material from extruder prior to shutdown.

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