WeConnectScience

LG Chem

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℃	ASTM D792		1.04
Mold Shrinkage	23℃, 3.2mm	ASTM D955	%	0.4 ~ 0.8
Melt Flow Index	220℃, 10kg	ASTM D1238	g/10min	7
Mechanical				
Tensile Strength at Yield	23℃, 50mm/min, 3.2mm	ASTM D638	MPa	535
Tensile Elongation at Break	23℃, 50mm/min, 3.2mm	ASTM D638	%, (Min)	20
Flexural Strength	23℃, 10mm/min, 6.4mm	ASTM D790	MPa	900
Flexural Modulus	23℃, 15mm/min, 3.2mm	ASTM D790	MPa	25800
Izod Impact Strength	Notched, 3.2mm, 23℃	ASTM D256	J/m	27
Izod Impact Strength	Notched, 6.4mm, 23℃	ASTM D256	J/m	20
Rockwell Hardness	R-Scale	ASTM D785		110
Thermal				
Heat Deflection Temperature	Edgewise, 1.82MPa, 6.4mm, Unannealed	ASTM D648	℃	93
Vicat Softening Temperature	50N, 50℃/h	ASTM D1525	℃	103

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℃, 50% relative humidity.

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Processing Guide (Injection Molding)

Processing Parameters	Unit	Value
Drying Temperature	℃	80 ~ 90
Drying Time	hrs	3 ~ 4
Injection Temperature	℃	220 ~ 290
Mold Temperature	℃	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.

Processing Guide (Extrusion)

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

Note

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