

LUCEL FW700N

Injection Molding, Modified POM

Description

Friction Resistance, Abrasion Resistance

Application

Gears, Printer Roller Pumps, Gear Worm Wheels

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.39
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	1.8 ~ 2.2
Melt Flow Rate	190 °C/2.16kg	ASTM D1238	g/10min	15
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm ²	548
Tensile Elongation, 3.2mm		ASTM D638		
@ Break	50mm/min		%	34
Flexural Strength, 3.2mm	1.3mm/min	ASTM D790	kg/cm ²	717
Flexural Modulus, 3.2mm	1.3mm/min	ASTM D790	kg/cm ²	18,417
IZOD Impact Strength, 6.4mm (Notched)	23 °C	ASTM D256	kg·cm/cm	4.6
Thermal				
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg	ASTM D648	°C	93
Flammability		UL94		
0.8mm			class	
1.6mm			class	
2.5mm			class	
3.2mm			class	
Electrical				
Dissipation Factor	1MHz	IEC 60250	10 ⁻⁴	
Surface Resistivity		IEC 60093	Ohm	
Volume Resistivity	23 °C	ASTM D257	Ohm·m	
Dielectric Strength, 1mm	23 °C	ASTM D149	kV/mm	

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.

Values given should not be interpreted as specification and not be used for part or tool design.

All properties, except melt flow rate are measured on injection molded specimens and after 48 hours storage at 23°C, 50% relative humidity.

Updated : 9-Nov-09

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Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		°C	90 ~ 110
Drying Time		hrs	2 ~ 3
Minimum Moisture Content		%	0.1
Melt Temperature		°C	200 ~ 220
Cylinder Temperature	Rear	°C	160 ~ 180
	Middle	°C	170 ~ 190
	Front	°C	180 ~ 200
Nozzle Temperature		°C	180 ~ 200
Mold Temperature		°C	80 ~ 110
Back Pressure		kg/cm ²	5 ~ 31
Screw Speed		rpm	50 ~ 100

Note) Back Pressure & 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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