

**CELCON® LU02**

POM

Celanese

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melt volume-flow rate, MVR	20	cm <sup>3</sup> /10min	ISO 1133
Temperature	190	°C	-
Load	2.16	kg	-
<sup>[C]</sup> Molding shrinkage, parallel	1.9	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	1.6	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	2530	MPa	ISO 527
<sup>[C]</sup> Yield stress	56	MPa	ISO 527
<sup>[C]</sup> Yield strain	9	%	ISO 527
<sup>[C]</sup> Nominal strain at break	11	%	ISO 527
<sup>[C]</sup> Charpy notched impact strength, +23°C	3.7	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	3.7	kJ/m <sup>2</sup>	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	167	°C	ISO 11357-1/-3
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	90	°C	ISO 75-1/-2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
<sup>[C]</sup> Density	1390	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	3	h	-
Processing humidity	≤0.35	%	-
Melt temperature	180 - 195	°C	-
Mold temperature	80 - 105	°C	-

**Characteristics****Processing**

Injection Molding

**Features**

Copolymer

**Delivery form**

Pellets

**Regional Availability**

North America, South and Central America

**Special Characteristics**

U.V. stabilized or stable to weather

**Other text information****Injection molding**

Drying is recommended for low gloss grades of Celcon® and Hostaform® acetal copolymers. Excessive moisture can lead to splay (silver streaking) in molded parts. For better uniformity in molding especially when using regrind or material that has been stored in containers open to the atmosphere, recommended drying conditions are 80 C (180 F) for 3hours. Desiccant hopper dryers are not required. Maximum water content = 0.35%

Standard reciprocating screw injection molding machines with a high compression screw (minimum 3:1 and preferably 4:1) and low back pressure (0.35 Mpa/50 PSI) are favored. Using a low compression screw (I.E. general purpose 2:1 compression ratio) can result in unmelted particles and poor melt homogeneity. Using a high back pressure to make up for a low compression ratio may lead to

excessive shear heating and deterioration of the material.

Use a slow injection speed until material passes through the gate.

Melt Temperature: Preferred range 180-195 C (~356--383 F). Melt temperature should never exceed 230 C (450 F).

Mold Surface Temperature: Preferred range 80-105 C especially with wall thickness less than 1.5 mm (0.060 in.). May require mold temperature as high as 120 C (250 F) to reproduce mold surface or to assure minimal molded in stress. In general, mold surface temperatures lower than 82 C (180 F) may produce a hazy surface or a surface with flow lines, pits and other included defects. Postprocessing conditioning and moisturizing are not required. It may be necessary to fixture large or complicated parts with varying wall thickness to prevent warpage while cooling to ambient temperature.