

UV resistant, reduced gloss

Celcon® acetal copolymer grade LU02 is UV stabilized material displaying a reduced gloss over standard UV acetal grades.

Rheological properties

Melt volume-flow rate Temperature Load	20 190 2.16	cm ³ /10min °C ka	ISO 1133
Moulding shrinkage range, parallel	1.9	%	ISO 294-4, 2577
Moulding shrinkage range, normal	1.6	%	ISO 294-4, 2577
Typical mechanical properties			
Tensile Modulus	2530	MPa	ISO 527-1/-2
Yield stress, 50mm/min	56	MPa	ISO 527-1/-2
Yield strain, 50mm/min	9	%	ISO 527-1/-2
Nominal strain at break	11	%	ISO 527-1/-2
Flexural Modulus	2500	MPa	ISO 178
Flexural Stress at 3.5%	67	MPa	ISO 178
Charpy notched impact strength, 23°C	3.7	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	3.7	kJ/m²	ISO 179/1eA
Thermal properties			
Melting temperature, 10°C/min	167	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	90	°C	ISO 75-1/-2
Vicat softening temperature, 50 ° C/h, 50N	161	°C	ISO 306
Other properties			
Density	1390	kg/m ³	ISO 1183
Injection			
Drving Temperature	100 - 120	°C	
Drying Time Dehumidified Dryer	3-4	h	
Max. mould temperature	80 - 105	°C	
Back pressure	4	MPa	
Injection speed	slow		
Additional information			

Injection molding

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.

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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.

True stress-strain

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Processing Texts					
Pre-drying	Predrying is required before processing to ensure a low gloss finish.				
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Injection molding Preprocessing	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%				
Injection molding Postprocessing	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.				
Other Approvals					
Other Approvals	OFM	Specification	Additional Information		

OEM	Specification	Additional Information
Honda		Color approved
Nissan		Color approved

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