

Celanese Celcon® M270UV

Celcon® M270UV is an acetal copolymer developed as a natural UV light stabilized lower molecular weight, high-flow grade designed for superior moldability in multi-cavity or hard to fill injection mold.

Physical Properties	Metric	English	Comments
Density	1.41 g/cc	0.0509 lb/in ³	ISO 1183
Moisture Absorption	0.200 %	0.200 %	23°C/50%RH; ISO 62
Water Absorption at Saturation	0.75 %	0.75 %	ISO 62
Linear Mold Shrinkage, Flow	0.017 cm/cm	0.017 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.016 cm/cm	0.016 in/in	ISO 294-4
Melt Flow	23 g/10 min @Load 2.16 kg, Temperature 190 °C	23 g/10 min @Load 4.76 lb, Temperature 374 °F	[cm ³ /10min]; ISO 1133
Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	66.0 MPa	9570 psi	50mm/min; ISO 527-2/1A
Elongation at Yield	8.0 %	8.0 %	50mm/min; ISO 527-2/1A
Tensile Modulus	2.80 GPa	406 ksi	50mm/min; ISO 527-2/1A
Flexural Modulus	2.75 GPa	399 ksi	ISO 178
Izod Impact, Notched (ISO)	4.90 kJ/m ²	2.33 ft-lb/in ²	ISO 180/1A
Charpy Impact, Notched	0.450 J/cm ²	2.14 ft-lb/in ²	ISO 179/1eA
Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	110 µm/m-°C	61.1 µin/in-°F	ISO 11359-2
CTE, linear, Transverse to Flow	120 µm/m-°C	66.7 µin/in-°F	ISO 11359-2
Melting Point	167 °C	333 °F	10°C/min; ISO 11357-1,-2,-3

Deflection Temperature at 1.8 MPa (264 psi)	102 °C	216 °F	ISO 75-1,-2
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Processing Properties	Metric	English	Comments
Processing Temperature	80.0 - 120 °C	176 - 248 °F	cavity
	180 - 200 °C	356 - 392 °F	hot runner
Zone 1	170 - 180 °C	338 - 356 °F	
Zone 2	180 - 190 °C	356 - 374 °F	
Zone 3	180 - 190 °C	356 - 374 °F	
Zone 4	190 - 200 °C	374 - 392 °F	
Die Temperature	190 - 200 °C	374 - 392 °F	
Melt Temperature	180 - 200 °C	356 - 392 °F	
Drying Temperature	80.0 - 100 °C	176 - 212 °F	
Dry Time	3.00 hour	3.00 hour	
Injection Pressure	60.0 - 120 MPa 8700 - 17400 psi		
Hold Pressure	60.0 - 120 MPa 8700 - 17400 psi		
Back Pressure	<= 4.00 MPa	<= 580 psi	

Descriptive Properties	
Injection molding	Yes
Injection speed	slow-medium
Pellets	Yes
Processing conditions acc. ISO	9988-2