

# CELCON® GC20

## CELCON®

Celcon® GC20 is a glass coupled formulation containing 20% glass fiber reinforcement for improved strength and stiffness (for even better mechanical properties, please consider Hostaform® C 9021 GV1/20). Chemical abbreviation according to ISO 1043-1: POM

### Product information

Resin Identification	POM	ISO 1043
Part Marking Code	>POM<	ISO 11469

### Typical mechanical properties

Tensile modulus	7300 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	99 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.2 %	ISO 527-1/-2
Flexural modulus	7000 MPa	ISO 178
Flexural strength	130 MPa	ISO 178
Charpy impact strength, 23°C	30 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	40 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23°C	6 kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, 23°C	5.2 kJ/m <sup>2</sup>	ISO 180/1A
Poisson's ratio	0.35 <sup>[C]</sup>	

[C]: Calculated

### Thermal properties

Melting temperature, 10°C/min	166 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	160 °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	43 E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	110 E-6/K	ISO 11359-1/-2

### Physical/Other properties

Humidity absorption, 2mm	0.2 %	Sim. to ISO 62
Water absorption, 2mm	0.8 %	Sim. to ISO 62
Density	1540 kg/m <sup>3</sup>	ISO 1183

### Injection

Drying Recommended	no
Drying Temperature	100 °C
Drying Time, Dehumidified Dryer	3 - 4 h
Processing Moisture Content	≤0.2 %
Melt Temperature Optimum	190 °C
Min. melt temperature	180 °C
Max. melt temperature	200 °C
Screw tangential speed	≤0.3 m/s
Mold Temperature Optimum	105 °C
Min. mould temperature	90 °C
Max. mould temperature	120 °C
Hold pressure range	60 - 120 MPa
Back pressure	2 MPa

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## Additional information

Processing Notes

### Pre-Drying

Drying is not normally required. If material has come in contact with moisture through improper storage or handling or through regrind use, drying may be necessary to prevent splay and odor problems.