

CELCON® MR50B - POM

Description

Celcon® MR50B is a specialty media resistant grade developed for improved bleach resistance and improved toughness.

Physical properties	Value	Unit	Test Standard
Density	1410	kg/m ³	ISO 1183
Melt volume rate, MVR	4	cm ³ /10min	ISO 1133
MVR temperature	190	°C	ISO 1133
MVR load	2.16	kg	ISO 1133
Molding shrinkage, parallel	2.5	%	ISO 294-4, 2577
Molding shrinkage, normal	2.0	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2600	MPa	ISO 527-2/1A
Tensile stress at yield, 50mm/min	63	MPa	ISO 527-2/1A
Tensile strain at yield, 50mm/min	11	%	ISO 527-2/1A
Flexural modulus, 23°C	2500	MPa	ISO 178
Charpy impact strength, 23°C	139	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	115	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	8	kJ/m ²	ISO 179/1eA
Izod impact notched, 23°C	8	kJ/m ²	ISO 180/1A

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
DTUL at 1.8 MPa	93	°C	ISO 75-1, -2
Coeff. of linear therm expansion, parallel	0.9	E-4/°C	ISO 11359-2
Coeff. of linear therm expansion, normal	0.9	E-4/°C	ISO 11359-2

Typical injection moulding processing conditions

Pre Drying	Value	Unit	Test Standard
Drying time	3 - 4	h	-
Drying temperature	100 - 120	°C	-
Temperature	Value	Unit	Test Standard
Zone1 temperature	170 - 180	°C	-
Zone2 temperature	180 - 190	°C	-
Zone3 temperature	180 - 190	°C	-
Zone4 temperature	180 - 200	°C	-
Nozzle temperature	180 - 200	°C	-
Melt temperature	180 - 200	°C	-
Mold temperature	80 - 120	°C	-
Hot runner temperature	180 - 200	°C	-
Pressure	Value	Unit	Test Standard
Back pressure max.	40	bar	-
Speed	Value	Unit	Test Standard
Injection speed	slow	-	-

