

TARNOFORM® 411 CE

POM

Celanese

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	11.5	cm ³ /10min	ISO 1133
Temperature	190	°C	-
Load	2.16	kg	-
Molding shrinkage, parallel	2.0	%	ISO 294-4, 2577
Molding shrinkage, normal	1.8	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	3000	MPa	ISO 527
Yield stress	66	MPa	ISO 527
Yield strain	8	%	ISO 527
Flexural modulus, 23°C	2700	MPa	ISO 178
Charpy impact strength, +23°C	170	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	6	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	5	kJ/m ²	ISO 179/1eA
Ball indentation hardness	156	MPa	ISO 2039-1

Thermal properties	Value	Unit	Test Standard
ISO Data			
Melting temperature, 10°C/min	170	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	107	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	161	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2

Electrical properties	Value	Unit	Test Standard
ISO Data			
Volume resistivity	1E12	Ohm*m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	25	kV/mm	IEC 60243-1

Other properties	Value	Unit	Test Standard
Density	1410	kg/m ³	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 120	°C	-
Pre-drying - Time	3 - 4	h	-
Melt temperature	190 - 220	°C	-
Mold temperature	80 - 120	°C	-
Zone 1	170 - 180	°C	-
Zone 2	180 - 190	°C	-
Zone 3	190 - 200	°C	-
Zone 4	190 - 210	°C	-
Nozzle temperature	190 - 210	°C	-
Back pressure	<4	MPa	-

Characteristics**Processing**

Injection Molding

Delivery form

Pellets

Certifications

Food contact, Food approval 10/2011, Food approval FDA 21 CFR