



Celapex® CL 300G

Celanese Corporation - Polyetheretherketone

Tuesday, November 5, 2019

General Information

Product Description

Celapex® 300G is an easy flow unreinforced polyether ether ketone (PEEK) for injection molding. It has superior chemically resistant to aggressive environments. The typical applications of this product are standard geometry injection molded parts.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant	• Good Flow	
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (380°C/5.0 kg)	80	g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.3	%	
Flow	1.0	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield)	15200	psi	ISO 527-2/1A/50
Tensile Strain (Break)	30	%	ISO 527-2/1A/50
Flexural Modulus (73°F)	624000	psi	ISO 178
Flexural Stress (73°F)	25400	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	1.9	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	No Break		ISO 179/1eU
Notched Izod Impact Strength (73°F)	2.4	ft·lb/in ²	ISO 180/A
Unnotched Izod Impact Strength (73°F)	No Break		ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	313	°F	ISO 75-2/A
Glass Transition Temperature ²	289	°F	ISO 11357-2
Melting Temperature ²	649	°F	ISO 11357-3
CLTE - Flow			ISO 11359-2
-- ³	2.8E-5	in/in/°F	
-- ⁴	6.7E-5	in/in/°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Electric Strength	580	V/mil	IEC 60243-1
Relative Permittivity (1 MHz)	3.20		IEC 60250
Dissipation Factor (1 MHz)	4.0E-3		IEC 60250
Comparative Tracking Index ⁵	150	V	IEC 60112

Celapex® CL 300G

Celanese Corporation - Polyetheretherketone

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	284 to 302	°F
Drying Time	4.0 to 8.0	hr
Suggested Max Moisture	0.030	%
Processing (Melt) Temp	707 to 752	°F
Mold Temperature	329 to 374	°F
Injection Rate	Moderate-Fast	
Back Pressure	< 290	psi

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min

³ below

⁴ above

⁵ 100 Drop Voltage