CoolPoly® E3617

Celanese Corporation - Polyamide 6

Monday, November 4, 2019

General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.62	g/cm³	ISO 1183
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1.60E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	7250	psi	ISO 527-2/1A/5
Tensile Strain (Break)	0.60	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.74E+6	psi	ISO 178
Flexural Stress (73°F)	11200	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Unnotched Impact Strength (73°F)	2.1	ft·lb/in²	ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**
Specific Heat	0.263	Btu/lb/°F	ASTM E1461
Thermal Conductivity			ASTM E1461
-- [2]	31	Btu·in/hr/ft²/°F	
-- [3]	170	Btu·in/hr/ft²/°F	
-- [4]	220	Btu·in/hr/ft²/°F	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	428 to 482	°F
Middle Temperature	437 to 527	°F
Front Temperature	455 to 536	°F
Nozzle Temperature	455 to 536	°F
Processing (Melt) Temp	450 to 540	°F
Mold Temperature	100 to 199	°F
Injection Rate	Moderate-Fast	
Back Pressure	< 435	psi

Injection Notes

Zone4 temperature: 235 to 280°C

Notes

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

[2] Thruplane

[3] Crossflow

[4] Flow