

Celanex® 2401 MT

Polybutylene Terephthalate

Celanese Corporation

Message:

Celanex 2401 MT Natural is an unreinforced, high molecular weight PBT that complies with the requirements of CFR 21 177.1660 of the Food and Drug Administration (FDA) and is listed in the Drug Master File (DMF) 10047 (US) / 10033 (EU) and the Device Master File (MAF) 443 (US) / 1078 (EU).. 2401 MT also complies with the corresponding EU and national registry regulatory requirements. 2401 MT has displayed excellent biocompatibility in tests corresponding to USP 23 class VI. Celanex 2401 MT contains no animal derived materials.

General Information			
Features	High molecular weight		
	Biocompatibility		
	No kinetic components		
Agency Ratings	DMF 10033		
	DMF 10047		
	FDA 21 CFR 177.1660		
	MAF 1078		
	MAF 443		
	USP XXIII, Class VI		
RoHS Compliance	Contact manufacturer		
Appearance	Natural color		
Physical	Nominal Value	Unit	Test Method
Density	1.31	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	20.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow	1.8 - 2.0	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2600	MPa	ISO 527-2/1A/1
Tensile Stress			ISO 527-2/1A/50
Yield	60.0	MPa	ISO 527-2/1A/50
50% strain	30.0	MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	4.0	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	> 50	%	ISO 527-2/1A/50
Flexural Modulus (23°C)	2500	MPa	ISO 178
Flexural Stress (23°C)	80.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	6.0	kJ/m ²	ISO 179/1eA
23°C	6.0	kJ/m ²	ISO 179/1eA

Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	190	kJ/m ²	ISO 179/1eU
23°C	No Break		ISO 179/1eU
Notched Izod Impact (23°C)	5.0	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	150	°C	ISO 75-2/B
1.8 MPa, not annealed	55.0	°C	ISO 75-2/A
Glass Transition Temperature ¹	60.0	°C	ISO 11357-2
Vicat Softening Temperature	190	°C	ISO 306/B50
Melting Temperature ²	225	°C	ISO 11357-3
CLTE - Flow	1.1E-4	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+15	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohms · cm	IEC 60093
Dielectric Strength	23	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.00		IEC 60250
1 MHz	3.50		IEC 60250
Dissipation Factor			IEC 60250
100 Hz	1.4E-3		IEC 60250
1 MHz	0.022		IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.800 mm)	HB		UL 94
Oxygen Index	20	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	120 - 130	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Max Regrind	25	%	
Hopper Temperature	20.0 - 50.0	°C	
Rear Temperature	230 - 240	°C	
Middle Temperature	235 - 250	°C	
Front Temperature	235 - 250	°C	
Nozzle Temperature	250 - 260	°C	
Processing (Melt) Temp	235 - 260	°C	
Mold Temperature	65.0 - 93.0	°C	
Injection Rate	Moderate-Fast		
Back Pressure	0.00 - 0.345	MPa	
Injection instructions			
Manifold Temperature: 250 to 260°CZone 4 Temperature: 240 to 260°CFeed Temperature: 230 to 240°C			

NOTE

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| 1. | 10°C/min |
| 2. | 10°C/min |

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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