CELANEX® HCT 241A EF3001 (PRELIMINARY)

CELANEX® PBT

Celanex HCT 241A is an unfilled, medium flow PBT grade for injection molding processing, it is ISO 10993 certified for medical applications.

产品信息

树脂鉴别	PBT		ISO 1043
制品标识码	>PBT<		ISO 11469

流变性能

熔体体积流动速度	20	cm^3/10min	ISO 1133
温度	250	°C	
负荷	2.16	kg	
模塑收缩率, 平行	1.6	%	ISO 294-4, 2577
模塑收缩率范围, 平行	1.4 - 1.9	%	ISO 294-4, 2577
模塑收缩率, 垂直	1.6	%	ISO 294-4, 2577
模塑收缩率范围, 垂直	1.4 - 1.9	%	ISO 294-4, 2577

机械性能

拉伸模量	2600	MPa	ISO 527-1/-2
拉伸屈服应力, 50mm/min	60	MPa	ISO 527-1/-2
屈服伸长率, 50mm/min	4	%	ISO 527-1/-2
断裂标称应变	50	%	ISO 527-1/-2
弯曲模量	2500	MPa	ISO 178
弯曲强度	80	MPa	ISO 178
简支梁无缺口冲击强度, 23°C	N	kJ/m^2	ISO 179/1eU
简支梁无缺口冲击强度, -30°C	190	kJ/m^2	ISO 179/1eU
简支梁缺口冲击强度, 23°C	4	kJ/m^2	ISO 179/1eA
简支梁缺口冲击强度, -30°C	4	kJ/m^2	ISO 179/1eA

热性能

熔融温度, 10°C/min	225	°C	ISO 11357-1/-3
玻璃化转变温度, 10°C/min	60	°C	ISO 11357-1/-3
热变形温度, 1.8 MPa	55	°C	ISO 75-1/-2
热变形温度, 0.45 MPa	150	°C	ISO 75-1/-2
维卡软化温度, 50°C/h 50N	190	°C	ISO 306
线性热膨胀系数, 平行	110	E-6/K	ISO 11359-1/-2

其它性能

吸湿率, 2mm	0.2	%	类似ISO 62
吸水率, 2mm	0.45	%	类似ISO 62
密度	1310	kg/m^3	ISO 1183

注塑

建议干燥	是	
干燥温度	120	°C
干燥时间，除湿干燥机	4	h
加工前水分含量	≤ 0.02	%
最优熔体温度	250	°C

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最低熔体温度***	240	°C
最高熔体温度	260	°C
螺杆最大切线速度	0.1 - 0.3	m/s
最优模具温度	80	°C
最低模具温度	60	°C
最高模具温度	130	°C

特性

加工方法	注塑
添加剂	脱模助剂

其他信息

注塑

Preprocessing

To avoid hydrolytic degradation during processing, CELANEX resins have to be dried to a moisture level equal to or less than 0.02%. Drying should be done in a dehumidifying hopper dryer capable of dewpoints <-30°F (-34°C) at 250°F (121°C) for 4 hours.

Processing

Rear Temperature 450-470(230-240) deg F (deg C)
Center Temperature 460-480(235-250) deg F (deg C)
Front Temperature 470-500(240-260) deg F (deg C)
Nozzle Temperature 480-500(250-260) deg F (deg C)
Melt Temperature 460-500(235-260) deg F (deg C)
Mold Temperature 150-200(65-93) deg F (deg C)
Back Pressure 0-50 psi
Screw Speed Medium
Injection Speed Fast

Injection speed, injection pressure and holding pressure have to be optimized to the individual article geometry. To avoid material degradation during processing low back pressure and minimum screw speed have to be used. Overheating of the material has to be avoided, in particular for flame retardant grades. Up to 25% clean and dry regrind may be used.

加工注意事项

Storage

For subsequent storage of the material in the dryer until processed (<= 60 h) it is necessary to lower the temperature to 100° C.

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Revised: 2026-01-15 Source: Celanese Materials Database

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.
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