EMERGE™ PC/ABS 7100 MED

Advanced Resin

Trinseo

Message:

EMERGE™ PC/ABS 7100 MED Advanced Resin exhibits a balance of properties between impact strength, heat resistance and processability. It has excellent flow and is ideal for injection molding in thin-wall applications. This resin is available in natural and custom colors. EMERGE PC/ABS 7100 MED resin is compliant with ISO 10993 (Biological Evaluation of Medical Devices) and is suitable for use in approved medical applications.

Main Characteristics:

Tested under ISO 10993

Applications:

Medical Applications

General Information			
Features	Impact resistance, high		
	Workability, good		
	High liquidity		
	Heat resistance, high		
	Biocompatibility		
Uses	Electrical housing		
	Medical/nursing supplies		
Agency Ratings	ISO 10993 2		
Appearance	Available colors		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.11	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
230°C/3.8 kg	4.5	g/10 min	ASTM D1238
260°C/5.0 kg	25	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.50 - 0.70	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 3.20 mm, Injection Molded)	112		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (3.20 mm, Injection Molded)	2210	MPa	ASTM D638
Tensile Strength ¹ (Yield, 3.20 mm, Injection Molded)	50.3	MPa	ASTM D638
Tensile Elongation			ASTM D638

Yield, 3.20mm, injection molding	4.0	%	ASTM D638
Fracture, 3.20mm, injection molding	50	%	ASTM D638
Flexural Modulus (3.20 mm, Injection Molded)	2340	MPa	ASTM D790
Flexural Strength (3.20 mm, Injection Molded)	80.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C, 3.20mm, injection molding	290	J/m	ASTM D256
23°C, 3.20mm, injection molding	480	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.20mm, injection molding	116	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm, injection molding	95.0	°C	ASTM D648
Vicat Softening Temperature	133	°C	ASTM D1525 ²
CLTE - Flow	7.6E-5	cm/cm/°C	ASTM D696
Flammability	Nominal Value		Test Method
Flame Rating ³ (1.0 mm)	НВ		UL 94
Additional Information	Nominal Value		
Drying Temperature			
Injection	Nominal Value	Unit	
Drying Temperature	80	°C	
Drying Time	3.0 - 4.0	hr	
Processing (Melt) Temp	238 - 266	°C	
Mold Temperature	49 - 91	°C	
NOTE			
1.	51 mm/min		
2.	标准 B (120°C/h), 压 力1 (10N)		
3.	This rating is not intended to reflect the danger caused by this or any other material under actual fire conditions.		

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