

LEXAN™ HPS2REU resin

Polycarbonate
SABIC Innovative Plastics Europe

Message:
Med/high flow polycarbonate. For medical devices and pharmaceutical applications. Healthcare management of change, biocompatible (ISO10993 or USP ClassVI). EtO, steam, e-beam and gamma sterilizable

General Information			
Features	Biocompatible		
	E-beam Sterilizable		
	Ethylene Oxide Sterilizable		
	High Flow		
	Radiation Sterilizable		
	Steam Sterilizable		
Uses	Medical Devices		
	Pharmaceuticals		
Agency Ratings	ISO 10993		
	USP Class VI		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	17.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.50 to 0.70	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.35	%	
Equilibrium, 23°C, 50% RH	0.15	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2350	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	63.0	MPa	
Break	70.0	MPa	
Tensile Strain			ISO 527-2/50
Yield	6.0	%	
Break	110	%	
Flexural Modulus ²	2300	MPa	ISO 178
Flexural Stress	90.0	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			
-30°C ³	10	kJ/m ²	ISO 179/1eA
23°C ⁴	70	kJ/m ²	ISO 179/1eA
23°C	35	kJ/m ²	ISO 179/2C
Charpy Unnotched Impact Strength ⁵			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength ⁶			ISO 180/1A
-30°C	12	kJ/m ²	
23°C	70	kJ/m ²	
Unnotched Izod Impact Strength ⁷			ISO 180/1U
-30°C	No Break		
23°C	No Break		
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁸			
0.45 MPa, Unannealed, 100 mm Span	130	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	120	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	150	°C	ISO 306/A50
--	140	°C	ISO 306/B50, ISO 306/B120
RTI Elec	130	°C	UL 746
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.586		ISO 489
Transmittance (2540 µm)	88.0 to 90.0	%	ASTM D1003
Haze (2540 µm)	< 0.80	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	260 to 280	°C	
Middle Temperature	270 to 290	°C	
Front Temperature	280 to 310	°C	
Nozzle Temperature	270 to 290	°C	
Processing (Melt) Temp	280 to 310	°C	
Mold Temperature	80.0 to 110	°C	
NOTE			
1.	Tensile Bar		
2.	2.0 mm/min		
3.	80*10*3 sp=62mm		
4.	80*10*3 sp=62mm		

5.	80*10*3 sp=62mm
6.	80*10*3
7.	80*10*3
8.	120*10*4 mm

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