

LEXAN™ HP3REU resin

Polycarbonate
SABIC Innovative Plastics Europe

Message:
Medium flow polycarbonate. For medical devices and pharmaceutical applications. Healthcare management of change, biocompatible (ISO10993 or USP Class VI). EtO and steam sterilizable. Contains mold release.

General Information			
UL YellowCard	E45329-100106611		
Additive	Mold Release		
Features	Biocompatible		
	Ethylene Oxide Sterilizable		
	Medium Flow		
	Steam Sterilizable		
Uses	Medical/Healthcare Applications		
	Pharmaceuticals		
Agency Ratings	ISO 10993		
	USP Class VI		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	14	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	12.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	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			
-- ¹	2370	MPa	ASTM D638
--	2350	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	62.0	MPa	ASTM D638
Yield	63.0	MPa	ISO 527-2/50
Break ³	68.0	MPa	ASTM D638
Break	70.0	MPa	ISO 527-2/50

Tensile Elongation			
Yield ⁴	7.0	%	ASTM D638
Yield	6.0	%	ISO 527-2/50
Break ⁵	130	%	ASTM D638
Break	110	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2340	MPa	ASTM D790
-- ⁷	2300	MPa	ISO 178
Flexural Stress			
--	90.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	96.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
-30°C	15	kJ/m ²	
23°C	70	kJ/m ²	
Charpy Unnotched Impact Strength ¹⁰			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact			
-30°C	100	J/m	ASTM D256
23°C	800	J/m	ASTM D256
-30°C ¹¹	10	kJ/m ²	ISO 180/1A
23°C ¹²	70	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ¹³			ISO 180/1U
-30°C	No Break		
23°C	No Break		
Instrumented Dart Impact (23°C, Total Energy)	63.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	132	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span ¹⁴	125	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	141	°C	ASTM D1525, ISO 306/B50 11 ¹⁵
--	142	°C	ISO 306/B120
CLTE			
Flow : -40 to 95°C	6.8E-5	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	7.0E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 95°C	6.8E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	7.0E-5	cm/cm/°C	ISO 11359-2
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.	50 mm/min
2.	Type I, 50 mm/min
3.	Type I, 50 mm/min
4.	Type I, 50 mm/min
5.	Type I, 50 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*3 sp=62mm
10.	80*10*3 sp=62mm
11.	80*10*3
12.	80*10*3
13.	80*10*3
14.	120*10*4 mm
15.	Rate B (120°C/h), Loading 2 (50 N)

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

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



WECHAT