

CALIBRE™ 301EP-22

Polycarbonate Resin

Trinseo

Message:

CALIBRE™ 300EP-22 Series are polycarbonate resins that offer exceptional impact resistance, heat distortion resistance, and optical clarity for injection molding applications. Their high melt flow rate allows complex parts to be easily molded. The CALIBRE 300EP-22 series products are available in 4 additive packages: CALIBRE 300EP: No mold release or UV Stabilizer. CALIBRE 301EP: Mold release. CALIBRE 302EP: UV stabilizer. CALIBRE 303EP: Mold release and UV stabilizer.

Govt. and Industry Standards:
CSA (Canadian Standards Association)
Underwriters Laboratory, Inc. (UL)

Applications:
Appliances
Storage
Electrical components
Light diffusers

General Information			
UL YellowCard	E54680-469962	E157291-238221	E157291-238226
Additive	Mold Release		
Features	High Clarity		
	High Flow		
	High Impact Resistance		
Uses	Appliances		
	Electrical/Electronic Applications		
Agency Ratings	CSA Unspecified Rating		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	22	g/10 min	ISO 1133
Molding Shrinkage - Flow	0.50 to 0.70	%	ISO 294-4
Water Absorption			ISO 62
23°C, 24 hr	0.15	%	
Equilibrium, 23°C, 50% RH	0.32	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ISO 2039-2
M-Scale	73		
R-Scale	118		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2300	MPa	ISO 527-2/50
Tensile Stress			ISO 527-2/50

Yield	60.0	MPa	
Break	65.0	MPa	
Tensile Strain			ISO 527-2/50
Yield	6.0	%	
Break	120	%	
Flexural Modulus ¹	2400	MPa	ISO 178
Flexural Stress ²	97.0	MPa	ISO 178
Taber Abrasion Resistance	45	%	ISO 9352
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	20	kJ/m ²	ISO 179/1eA
Notched Izod Impact Strength (23°C)	74	kJ/m ²	ISO 180/A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Annealed	142	°C	ISO 75-2/B
1.8 MPa, Unannealed	122	°C	ISO 75-2/A
1.8 MPa, Annealed	139	°C	ISO 75-2/A
Vicat Softening Temperature	147	°C	ISO 306/B50
Ball Indentation Temperature	> 125	°C	IEC 60335-1
CLTE - Flow	6.8E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength	17	kV/mm	IEC 60243-1
Dielectric Constant			
60 Hz	3.00		IEC 60250
1 MHz	3.00		IEC 60250
100 Hz	3.00		IEC 60250
Dissipation Factor			IEC 60250
50 Hz	1.0E-3		
1 MHz	2.0E-3		
Comparative Tracking Index (2.00 mm, Solution A)	250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating ³			UL 94
1.50 mm	V-2		
3.00 mm	V-2		
Glow Wire Flammability Index ⁴			IEC 60695-2-12
1.00 mm	900	°C	
2.00 mm	875	°C	
3.00 mm	875	°C	
Glow Wire Ignition Temperature ⁵			IEC 60695-2-13
1.00 mm	800	°C	
2.00 mm	775	°C	

3.00 mm	775	°C	
Oxygen Index ⁶	26	%	ISO 4589-2
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.586		ISO 489
Transmittance	89.0	%	ASTM D1003
Haze	1.0	%	ASTM D1003
NOTE			
1.	2.0 mm/min		
2.	2.0 mm/min		
3.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.		
4.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.		
5.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.		
6.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.		

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