CALIBRE™ 303-6

Polycarbonate Resin

Trinseo

Message:

CALIBRE™ 300-6 Polycarbonate resins offer exceptional impact resistance, heat distortion resistance, and optical clarity as well as high melt strength for blow molding and sheet applications. The CALIBRE 300-6 series products are available in 4 additive packages: CALIBRE 300: No mold release or UV Stabilizer. CALIBRE 301: Mold release. CALIBRE 302: UV stabilizer. CALIBRE 303: Mold release and UV stabilizer.
Govt. and Industry Standards:
CSA (Canadian Standards Association)
Underwriters Laboratory, Inc. (UL)
Applications:
Automotive interiors
Automotive exteriors
Sheet applications
Electrical lighting/switches
Small & large appliances
Beverage containers/serviceware
Power equipment

General Information			
UL YellowCard	E54680-469961	E157291-238220	E206114-228276
Additive	Mold Release UV Stabilizer		
Features	Good Melt Strength High Clarity High Impact Resistance		
Uses	Appliances Automotive Applications Automotive Exterior Parts Automotive Interior Parts Containers Electrical/Electronic Applications Lighting Applications Sheet		
Agency Ratings	CSA Unspecified Rating		
Forms	Pellets		
Processing Method	Blow Molding Injection Molding Profile Extrusion Sheet Extrusion Thermoforming		

Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm³	ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	6.0	g/10 min	ISO 1133
Melt volume-flow rate (300°C/1.2 kg)	5.00	cm³/10min	ISO 1133 [1]
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	72.0	MPa	
Tensile Strain			ISO 527-2/50
Yield	6.0	%	
Break	150	%	
Flexural Modulus [2]	2400	MPa	ISO 178
Flexural Stress [3]	97.0	MPa	ISO 178
Taber Abrasion Resistance	45	%	ISO 9352
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	14	kJ/m²	
23°C	55	kJ/m²	
Notched Izod Impact Strength (23°C)	93	kJ/m²	ISO 180/A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Annealed	146	°C	ISO 75-2/B
1.8 MPa, Unannealed	126	°C	ISO 75-2/A
1.8 MPa, Annealed	143	°C	ISO 75-2/A
Vicat Softening Temperature	151	°C	ISO 306/B50
Ball Indentation Temperature	> 125	°C	IEC 60335-1
CLTE - Flow	7.0E-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 [4]			UL 94
1.50 mm	HB		
3.00 mm	HB		
Glow Wire Flammability Index [5]			IEC 60695-2-12
1.00 mm	900	°C	
2.00 mm	875	°C	
3.00 mm	875	°C	
Glow Wire Ignition Temperature [6]			IEC 60695-2-13
1.00 mm	800	°C	
2.00 mm	775	°C	
3.00 mm	775	°C	
Oxygen Index [7]	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.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
2.	2.0 mm/min
3.	2.0 mm/min
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.
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