

CALIBRE™ 303V-10

Polycarbonate Resin

Trinseo

Message:

CALIBRE™ 300V-10 Series polycarbonate resins offer exceptional impact resistance, heat distortion resistance, optical clarity and meets UL94 V-2 rating. The CALIBRE 300V series products are available in 2 additive packages: CALIBRE 302V: UV stabilizer. CALIBRE 303V: Mold release and UV stabilizer. Products may be offered in colors. Please check for availability.

Complies with:

CSA (Canadian Standards Association)

Underwriters Laboratory, Inc. (UL)

Consult the regulations for complete details.

Applications:

Electronic components

Lighting

Storage media housings

General Information			
UL YellowCard	E54680-469967	E206114-228279	
Additive	Mold Release		
	UV Stabilizer		
Features	High Clarity		
	High Impact Resistance		
Uses	Electrical/Electronic Applications		
	Housings		
	Lighting Applications		
Agency Ratings	CSA Unspecified Rating		
Forms	Pellets		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm³	ASTM D792, ISO 1183/B
Melt Mass-Flow Rate (MFR)			
--	10	g/10 min	ASTM D1238
300°C/1.2 kg	10	g/10 min	ISO 1133
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955, ISO 294-4
Water Absorption			
24 hr	0.15	%	ASTM D570
23°C, 24 hr	0.15	%	ISO 62
Equilibrium	0.32	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.32	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			

--	2410	MPa	ASTM D638
--	2300	MPa	ISO 527-2/50
Tensile Strength			ASTM D638, ISO 527-2/50
Yield	60.0	MPa	
Break	71.0	MPa	
Tensile Elongation			ASTM D638, ISO 527-2/50
Yield	6.0	%	
Break	150	%	
Flexural Modulus			
--	2410	MPa	ASTM D790
-- ¹	2400	MPa	ISO 178
Flexural Stress			
-- ²	97.0	MPa	ISO 178
Yield	96.5	MPa	ASTM D790
Taber Abrasion Resistance	45.0	mg	ASTM D1044
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	35	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
--	910	J/m	ASTM D256
23°C	35	kJ/m ²	ISO 180/4A
Unnotched Izod Impact	No Break		ASTM D256, ISO 180
Instrumented Dart Impact	87.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Annealed	141	°C	ASTM D648, ISO 75-2/B
1.8 MPa, Unannealed	125	°C	ASTM D648
1.8 MPa, Unannealed	122	°C	ISO 75-2/A
1.8 MPa, Annealed	138	°C	ASTM D648
1.8 MPa, Annealed	143	°C	ISO 75-2/A
Vicat Softening Temperature	146	°C	ASTM D1525, ISO 306/B50
Ball Indentation Temperature	125	°C	IEC 60335-1
CLTE - Flow	6.8E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	2.0E+17	ohms · cm	ASTM D257
Dielectric Strength	17	kV/mm	ASTM D149, IEC 60243-1
Dielectric Constant			ASTM D150
60 Hz	3.00		
1 MHz	3.00		
Dissipation Factor	1.0E-3		ASTM D150
Comparative Tracking Index (2.00 mm, Solution A)	250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method

Flame Rating ³			UL 94
1.60 mm	V-2		
3.20 mm	V-2		
Oxygen Index ⁴	26	%	ISO 4589-2
Optical	Nominal Value	Unit	Test Method
Refractive Index			
--	1.586		ASTM D542
	1.586		
--	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.		
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