CALIBRE™ 303V-10
Polycarbonate Resin

Overview

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

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.20	g/cm³	1.20	g/cm³	ASTM D792 ISO 1183/B
Melt Mass-Flow Rate (MFR)					
--	10	g/10 min	10	g/10 min	ASTM D1238
300°C/1.2 kg	10	g/10 min	10	g/10 min	ISO 1133
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3	in/in	0.50 to 0.70	%	ASTM D955 ISO 294-4
Water Absorption					
24 hr	0.15	%	0.15	%	ASTM D570
73°F (23°C), 24 hr	0.15	%	0.15	%	ISO 62
Equilibrium	0.32	%	0.32	%	ASTM D570
Equilibrium, 73°F (23°C), 50% RH	0.32	%	0.32	%	ISO 62
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus					
--	350000	psi	2410	MPa	ASTM D638
--	334000	psi	2300	MPa	ISO 527-2/50
Tensile Strength					ASTM D638 ISO 527-2/50
Yield	8700	psi	60.0	MPa	
Break	10300	psi	71.0	MPa	
Tensile Elongation					ASTM D638 ISO 527-2/50
Yield	6.0	%	6.0	%	
Break	150	%	150	%	
Flexural Modulus					
--	350000	psi	2410	MPa	ASTM D790
-- [1]	348000	psi	2400	MPa	ISO 178
Flexural Stress					
-- [1]	14100	psi	97.0	MPa	ISO 178
Yield	14000	psi	96.5	MPa	ASTM D790
Taber Abrasion Resistance	45.0	mg	45.0	mg	ASTM D1044

Impact	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	17	ft·lb/in²	35	kJ/m²	ISO 179/1eA
Notched Izod Impact					
--	17	ft·lb/in	910	J/m	ASTM D256
73°F (23°C)	17	ft·lb/in²	35	kJ/m²	ISO 180/4A
Unnotched Izod Impact	No Break		No Break		ASTM D256 ISO 180
Instrumented Dart Impact	770	in·lb	87.0	J	ASTM D3763
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					
66 psi (0.45 MPa), Annealed	286	°F	141	°C	ASTM D648 ISO 75-2/B
264 psi (1.8 MPa), Unannealed	257	°F	125	°C	ASTM D648
264 psi (1.8 MPa), Unannealed	252	°F	122	°C	ISO 75-2/A
264 psi (1.8 MPa), Annealed	280	°F	138	°C	ASTM D648
264 psi (1.8 MPa), Annealed	289	°F	143	°C	ISO 75-2/A
Vicat Softening Temperature	295	°F	146	°C	ASTM D1525 ISO 306/B50
Ball Indentation Temperature	257	°F	125	°C	IEC 60335-1
CLTE - Flow	3.8E-5	in/in/°F	6.8E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Volume Resistivity	2.0E+17	ohms·cm	2.0E+17	ohms·cm	ASTM D257
Dielectric Strength					
--	420	V/mil	17	kV/mm	ASTM D149
--	430	V/mil	17	kV/mm	IEC 60243-1
Dielectric Constant					ASTM D150
60 Hz	3.00		3.00		
1 MHz	3.00		3.00		
Dissipation Factor	1.0E-3		1.0E-3		ASTM D150
Comparative Tracking Index					IEC 60112
0.0787 in (2.00 mm), Solution A	250	V	250	V	
Flammability	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Flame Rating [2]					UL 94
0.06 in (1.6 mm)	V-2		V-2		
0.13 in (3.2 mm)	V-2		V-2		
Oxygen Index [2]	26	%	26	%	ISO 4589-2
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Refractive Index					
--	1.586		1.586		ASTM D542
--	• 1.586 • 1.586		• 1.586 • 1.586		ISO 489
Transmittance	89.0	%	89.0	%	ASTM D1003
Haze	1.0	%	1.0	%	ASTM D1003