Technical Information

TRINSEO™

CALIBRE™ 200-23
Polycarbonate Resin

Overview

CALIBRE™ 200-23 polycarbonate resins are produced in compliance with the US Food and Drug Administration (FDA) and EU food contact regulations. This material offers high flow with excellent impact resistance, heat distortion resistance and optical clarity. CALIBRE 200-23 contains no mold release or UV Stabilizer and is available in natural transparent colour only.

Govt. and Industry Standards:

- Europe Commission Regulation (EU) No 10/2011
- U.S. FDA 21 CFR 177.1580 (with Restrictions)
- Underwriters Laboratory, Inc. (UL)

Applications:

- Blending, compounding
- Appliances and food processors
- Housewares and food utensils
- Beverage containers
- Packaging applications

Automotive Specifications

- FORD ESF-M4D100-A1

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.20	g/cm³	1.20	g/cm³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	23	g/10 min	23	g/10 min	ASTM D1238 ISO 1133
Water Absorption					ISO 62
Saturation, 73°F (23°C)	0.32	%	0.32	%	
Equilibrium, 73°F (23°C), 50% RH	0.12	%	0.12	%	
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus	334000	psi	2300	MPa	ISO 527-1/1
Tensile Stress					ISO 527-2/50
Yield	8700	psi	60.0	MPa	
Break	9430	psi	65.0	MPa	
Tensile Strain					ISO 527-2/50
Yield	6.0	%	6.0	%	
Break	120	%	120	%	
Flexural Modulus [1]	348000	psi	2400	MPa	ISO 178
Flexural Stress [1]	14100	psi	97.0	MPa	ISO 178
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Charpy Notched Impact Strength					ISO 179/1eA
-22°F (-30°C)	5.2	ft·lb/in²	11	kJ/m²	
73°F (23°C)	9.5	ft·lb/in²	20	kJ/m²	
Notched Izod Impact					
73°F (23°C)	14	ft·lb/in	750	J/m	ASTM D256
73°F (23°C)	35	ft·lb/in²	74	kJ/m²	ISO 180/1A

Thermal	Nominal Value (English)		Nominal Value (SI)		Test Method
Deflection Temperature Under Load					ISO 75-2/A
264 psi (1.8 MPa), Unannealed	252	°F	122	°C	
Vicat Softening Temperature	297	°F	147	°C	ISO 306/B50
Optical	**Nominal Value (English)**		**Nominal Value (SI)**		**Test Method**
Refractive Index	1.586		1.586		ISO 489
Light Transmittance	87.0 to 91.0	%	87.0 to 91.0	%	ASTM D1003
Haze	< 1.00	%	< 1.00	%	ASTM D1003

Injection	Nominal Value (English)		Nominal Value (SI)	
Drying Temperature	248	°F	120	°C
Drying Time	4.0	hr	4.0	hr

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] 0.079 in/min (2.0 mm/min)

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