

CALIBRE™ 502-3

Polycarbonate Resin

Trinseo

Message:

CALIBRE™ 502-3 TC0302156 Resin is specially designed to provide increased fatigue resistance for extruded solid sheets. The resin is UV bulk stabilized, but outdoor use requires a co-extruded UV cap layer. It is recommended to apply in that case a 40 to 50 micron co-extruded layer of CALIBRE™ 320UV. CALIBRE 502-3 TC0302156 is also suitable to extrude corrugated solid sheet thanks to its low melt sagging.

Main Characteristics

Fatigue resistance

Low melt sagging

Applications

Flat solid polycarbonate sheet

Corrugated solid sheet

General Information			
Additive	UV Stabilizer		
Features	Fatigue Resistant		
Uses	Sheet		
Forms	Pellets		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm³	ASTM D792, ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	3.0	g/10 min	ASTM D1238, ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (4.00 mm, Injection Molded)	2200	MPa	ASTM D638, ISO 527-2
Tensile Strength			ASTM D638, ISO 527-2
Yield, 4.00 mm, Injection Molded	61.0	MPa	
Break, 4.00 mm, Injection Molded	68.0	MPa	
Tensile Elongation			ASTM D638, ISO 527-2
Yield, 4.00 mm, Injection Molded	6.0	%	
Break, 4.00 mm, Injection Molded	100	%	
Flexural Modulus (4.00 mm, Injection Molded)	2300	MPa	ASTM D790, ISO 178
Flexural Strength			
4.00 mm, Injection Molded	90.3	MPa	ASTM D790
4.00 mm, Injection Molded	90.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C, Injection Molded)	72	kJ/m²	ISO 179/1eA
Notched Izod Impact (23°C, 4.00 mm, Injection Molded)	850	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Annealed	145	°C	ASTM D648, ISO 75-2/B

1.8 MPa, Unannealed	132	°C	ASTM D648, ISO 75-2/A
Vicat Softening Temperature	158	°C	ISO 306/B50, ASTM D1525 1
Flammability	Nominal Value		Test Method
Flame Rating ² (1.60 mm)	HB		UL 94

NOTE

1. Rate A (50°C/h), Loading 2 (50 N)
2. This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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