

Cyclics CBT® 200 Thermoplastic Resin (discontinued **)

Categories: [Polymer](#); [Thermoplastic](#); [Polyester, TP](#); [Polybutylene Terephthalate \(PBT\)](#)

Material Notes: CBT® 200 resin melts to a water-like viscosity when heated, then polymerizes into the engineering thermoplastic resin polybutylene terephthalate (PBT). CBT 200 resin has a processing range between 170-240°C and is available in both one and two-part systems. CBT 200 resin is formulated for various casting, low pressure molding, coating, and composite applications where the lower melt temperature allows for longer working time than CBT 100 resin before polymerizing into PBT.

Information provided by Cyclics Corporation.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Specific Gravity	1.31 g/cc	1.31 g/cc	ASTM D792
Density	1.14 g/cc	0.0412 lb/in ³	Liquid (Unpolymerized resin)
Viscosity 	11 cP	11 cP	Melt (Unpolymerized resin); Cone and plate 10 1/s shear rate
	@Temperature 220 °C	@Temperature 428 °F	
	13 cP	13 cP	Melt (Unpolymerized resin); Cone and plate 10 1/s shear rate
	@Temperature 210 °C	@Temperature 410 °F	
	17 cP	17 cP	Melt (Unpolymerized resin); Cone and plate 10 1/s shear rate
	@Temperature 200 °C	@Temperature 392 °F	
	22 cP	22 cP	Melt (Unpolymerized resin); Cone and plate 10 1/s shear rate
	@Temperature 190 °C	@Temperature 374 °F	
	28 cP	28 cP	Melt (Unpolymerized resin); Cone and plate 10 1/s shear rate
Linear Mold Shrinkage	37 cP	37 cP	Melt (Unpolymerized resin); Cone and plate 10 1/s shear rate
	@Temperature 170 °C	@Temperature 338 °F	
	0.015 cm/cm	0.015 in/in	ASTM D955
	@Thickness 4.00 mm	@Thickness 0.157 in	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	54.0 MPa	7830 psi	ISO 527
Elongation at Break	>= 50 %	>= 50 %	5 mm/min; ISO 527
Elongation at Yield	3.2 %	3.2 %	ISO 527
Tensile Modulus	2.70 GPa	392 ksi	ISO 527
Flexural Strength	74.0 MPa	10700 psi	ISO 178
Flexural Modulus	2.38 GPa	345 ksi	ISO 178
Izod Impact, Notched (ISO)	6.70 kJ/m ²	3.19 ft-lb/in ²	ISO 180/A
Izod Impact, Unnotched (ISO)	NB	NB	ISO 180/U

Thermal Properties	Metric	English	Comments
Heat of Fusion	64.0 J/g	27.5 BTU/lb	Unpolymerized resin; ASTM E793
Specific Heat Capacity 	1.25 J/g-°C	0.299 BTU/lb-°F	Solid (Unpolymerized resin); ASTM E1269
	1.96 J/g-°C	0.468 BTU/lb-°F	Liquid (Unpolymerized resin); ASTM E1269
	@Temperature 180 °C	@Temperature 356 °F	
Melting Point	165 °C	329 °F	Unpolymerized resin
	225 °C	437 °F	ASTM D3418
Flammability, UL94	HB	HB	

Processing Properties	Metric	English	Comments
Processing Temperature	170 - 240 °C	338 - 464 °F	

**

Materials flagged as discontinued () are no longer part of the manufacturer's standard product line according to our latest information. These materials may be available by special order, in distribution inventory, or reinstated as an active product. Data sheets from materials that are no longer available remain in MatWeb to assist users in finding replacement materials.

Users of our Advanced Search (registration required) may exclude discontinued materials from search results.

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.