

# CBT® 500

Polybutylene Terephthalate

Cyclics Corporation

## Message:

The low viscosity of CBT 500 resin is especially suitable in many casting and composite processing techniques. By incorporating high filler and fiber loadings (greater than 70% by weight), significantly greater flexibility in desired part properties can be achieved.

CBT 500 is effective in casting with minerals or metals such as calcium carbonate, silicon dioxide, barium sulfate, and aluminum. It produces highly filled or reinforced PBT materials that achieve the following characteristics:

- High heat distortion temperatures
- Low thermal expansion
- High surface hardness and scratch resistance
- Superior machinability compared to epoxy-based syntactic foam
- Excellent surface finish with good edge definition
- High heat distortion temperature

General Information			
Filler / Reinforcement	Aluminum,67% Filler by Weight		
Features	Good Processability		
	Good Weather Resistance		
	High Hardness		
	High Heat Resistance		
	High Scratch Resistance		
	Outstanding Surface Finish		
Uses	Aerospace Applications		
	Automotive Applications		
	Marine Applications		
	Military Applications		
	Rods		
	Rollers		
	Sheet		
	Tubing		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	2.01	g/cm <sup>3</sup>	ASTM C128
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D)	87		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	9.20	MPa	ASTM D638
Tensile Strength	39.0	MPa	ASTM D638
Tensile Elongation (Break)	1.0	%	ASTM D1708
Flexural Modulus	3000	MPa	ASTM D790
Compressive Strength	110	MPa	ASTM D695

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	214	°C	ASTM D648
CLTE - Flow (23 to 80°C)	6.7E-5	cm/cm/°C	ASTM E831

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#### Recommended distributors for this material

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