

CAST URETHANE MATERIAL SPECIFICATIONS

AFP3500

Highlights

- High transparency (water clear)
- Easy polishing
- High reproduction accuracy
- Good UV resistance

Applications

- Lenses
- Bottles
- Backlight applications
- Crystal glass like parts
- Fashion, art and decoration parts

TYPICAL PHYSICAL PROPERTIES

Property	Test Method	English	Metric
Color/Appearance	Visual	Transparent	Transparent
Density	ASTM D792	0.0383 lb/in ³	1.06 gm/cc
Elongation at Break	ASTM D638	9.00 %	9.00 %
Flexural Modulus	ASTM D790	304,000 psi	2,096 MPa
Flexural Strength	ASTM D790	15,200 psi	105 MPa
Heat Deflection Temp. @ 66 psi	ASTM D648	212 °F	100 °C
Glass Transition Temp. E' (onset)	ASTM D4065	230 °F	110 °C
CHARPY impact strength	ISO 179/1D-94	-	27 KJ/m ²
Shore D Hardness	ASTM D2240	87 D	87 D
Tensile Modulus	ASTM D638	391,000 psi	2,696 MPa
Tensile Strength	ASTM D412	10,500 psi	72 MPa

Custom formulations, fillers such as Teflon and Aluminum powder, and additional post curing techniques may be used to enhance urethane material properties. For further information on additives and custom formulations, please contact your Solid Concepts Project Engineer. The material properties provided herein are for reference purposes only. Actual values may vary significantly as they are dramatically affected by part geometry and color pigmentation. Specifications are subject to change with out notice.