



# Figure 4™ MED-AMB 10

Biocompatible\* Rigid

A rigid, amber material for applications requiring biocompatibility, translucency and/or thermal resistance

Figure 4®

## TRANSLUCENT PARTS THAT CAN BE STERILIZED AND TESTED AT HIGH TEMPERATURE

Figure 4 MED-AMB 10 is a rigid, translucent material for a range of medical and industrial applications, including when biocompatibility, sterilization and/or thermal resistance is required with fluid flow visualization. It delivers parts with excellent feature resolution and high definition.

### Liquid Material

MEASUREMENT	CONDITION	METRIC	U.S.
Viscosity	@ 25 °C (77 °F)	1138 cps	2750 lb/ft-hr
Color		Amber	
Liquid Density	@ 25 °C (77 °F)	1.12 g/cm <sup>3</sup>	0.040 lb/in <sup>3</sup>
Package Volume		1 kg bottle - Figure 4 Standalone 2.5 kg cartridge - Figure 4 Modular 10 kg container - Figure 4 Production	
Layer Thickness (Standard Mode)		0.05 mm	0.002 in
Vertical Build Speed (Standard Mode)		43 mm/hr	1.7 in/hr
Vertical Build Speed (Draft Mode)		63 mm/hr	2.5 in/hr

## APPLICATIONS

- General medical applications requiring biocompatibility, sterilization and/or thermal resistance
- Surgical drill guides, splints
- Parts requiring rigidity with high temperature resistance
  - Fluid handling manifolds
  - Elevated temperature testing
- Parts with high definition details
  - Threaded assemblies
- Visualization and fluid flow models

## BENEFITS

- Capable of meeting ISO 10993-5 & -10 standards for biocompatibility (cytotoxicity, sensitization and irritation)
- Excellent visualization for parts requiring evaluation of internal features and their performance
- High temperature testing
- True-to-CAD accuracy and crisp feature detail

## FEATURES

- Biocompatible\*
- Sterilizable by autoclave
- Thermal resistance over 100 °C
- Excellent humidity/moisture resistance
- Rigid and translucent



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## Post-Cured Material

MECHANICAL PROPERTIES			
MEASUREMENT	CONDITION	METRIC	U.S.
Solid Density (g/cm <sup>3</sup>   lb/in <sup>3</sup> )	ASTM D792	1.20	0.043
Tensile Strength, Ultimate (MPa   PSI)	ASTM D638	69	10010
Tensile Modulus (MPa   KSI)	ASTM D638	2760	400
Elongation at Break	ASTM D638	4%	
Flexural Strength (MPa   PSI)	ASTM D790	111	16100
Flexural Modulus (MPa   KSI)	ASTM D790	2810	410
Notched Izod Impact Strength (J/m   Ft-lbs/in)	ASTM D256	18	0.3
Unnotched Izod Impact Strength (J/m   Ft-lbs/in)	ASTM D4812	220	4.1
Heat Deflection Temperature @ 0.45 MPa (66 PSI) @ 1.82 MPa (264 PSI)	ASTM D648	119 °C	246 °F
		94 °C	201 °F
Coefficient of Thermal Expansion (CTE) (ppm/°C   ppm/°F)	ASTM E831	< Tg	47
		> Tg	98
Glass Transition (Tg), DMA, E"	ASTM E1640	110 °C	230 °F
Hardness, Shore	ASTM D2240	84D	
Water Absorption (24 hour)	ASTM D570	0.26%	



Warranty/Disclaimer: The performance characteristics of these products may vary according to product application, operating conditions, or with end use. 3D Systems makes no warranties of any type, express or implied, including, but not limited to, the warranties of merchantability or fitness for a particular use.

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\* Biocompatibility is based on testing by 3D Systems on a single geometry and sample set per ISO 10993-5 and -10. Users should confirm fitness for use and biocompatibility for their applications.

Note: Not all products and materials are available in all countries – please consult your local sales representative for availability



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