



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 ³	0.040 lb/in ³
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
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 ³ lb/in ³)	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)	ASTM D648	119 °C	246 °F
@ 1.82 MPa (264 PSI)		94 °C	201 °F
Coefficient of Thermal Expansion (CTE) (ppm/°C ppm/°F)	ASTM E831	< Tg	84
		> Tg	177
Glass Transition (Tg), DMA, E"	ASTM E1640	110 °C	230 °F
Hardness, Shore	ASTM D2240	84D	
Water Absorption (24 hour)	ASTM D570	0.26%	



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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