



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
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



Figure 4™ MED-AMB 10

Biocompatible* Rigid

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

Figure 4®

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	47
		> Tg	177	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%		



www.3dsystems.com

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.

© 2019 by 3D Systems, Inc. All rights reserved. Specifications subject to change without notice. 3D Systems, the 3D Systems logo and Figure 4 are registered trademarks of 3D Systems, Inc.

* 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