

AXIS 1007 CTH

Technical Data Sheet

AXIS 1007 CTH is a medical device adhesive designed for rapid bonding of rigid plastics typically used in the manufacture of catheter and similar medical devices. Resin Designs medical device adhesives contain no nonreactive solvents and cure upon exposure to UV light. Their ability to cure in seconds enables faster processing and greater output. AXIS 1007 CTH has been qualified according to ISO 10993-5, cytotoxicity, to assist in the selection of products for use in the medical device industry. Axis 1007 CTH complies with the Limit of Volatile Organic Compounds content in adhesives (GB 33372-2020) National Standard of the People's Republic of China.

APPLICATIONS	FEATURES	SUBSTRATES
<ul style="list-style-type: none"> • Needle bonding 	<ul style="list-style-type: none"> • UV-light cure 	<ul style="list-style-type: none"> • Plastics
<ul style="list-style-type: none"> • Catheters 	<ul style="list-style-type: none"> • Moisture Resistant 	<ul style="list-style-type: none"> • Metals
<ul style="list-style-type: none"> • Medical potting 	<ul style="list-style-type: none"> • Biocompatibility per ISO 10993-5 	

Typical Properties of Uncured Material*

Chemical Class	Acrylated urethane
Color	Clear Translucent Gel
Viscosity @25°C, Spn6 @10RPM, cps	47000 to 60000
Viscosity @25°C, Spn6 @100RPM, cps	7500 to 10000
Specific Gravity	1.07
Cleanup Solvent	Isopropyl alcohol

UV Light Cure Guidelines*

Recommended Curing Spectrum	UVA
Minimum dosage required, J/cm ²	4

Typical Properties of Cured Material*

Durometer, Shore D	75
Elongation, %	8
Tensile Strength, MPa, [psi]	29.36 [4300]
Compressive Modulus @ -60°C, MPa	543
Compressive Modulus @ 22°C, MPa	203
Compressive Modulus @ 140°C, MPa	1.4
Glass Transition Temperature (T _g), °C	40
Lap Shear Strength, PC / PC, psi	750
Temperature at 1% wt. loss, °C	155
Temperature at 5% wt. loss, °C	295
Processing Temperature Range, °C	-50 to 140

***All properties given are typical values and are not intended for use in preparing specifications.**

Heat is also an important component with UV cure, and different systems produce different heat outputs. Cure testing was done in an open system and results will vary with application. Consequently, Resin Designs recommends that curing is discussed with our Technical staff to ensure the exact customer process being used will meet the coating cure requirements.

AXIS 1007 CTH was designed to be cured using a microwave UV oven. Arc and LED systems may cure AXIS 1007 CTH; however, care must be taken during the equipment selection process to ensure minimum dosage and irradiance values obtained will properly cure the coating. Because of the variations possible in curing



equipment type and configuration, it is strongly recommended that you contact Resin Designs Technical Support to discuss your equipment and process in detail.

Storage

Keep stored between 8°C and 28°C in tightly closed, light-blocking containers away from direct sunlight. Keep from freezing. Please refer to product labeling for shelf-life information. Consult SDS for safe handling recommendations.

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