

AXIS 921

Technical Data Sheet

Axis 921 is a high viscosity, fast curing, rigid, gel adhesive. AXIS 921 cures in seconds when exposed to UV light and achieves excellent adhesion to a variety of substrates including glass, plastics, and metals. Resin Designs medical device adhesives contain no nonreactive solvents and cure upon exposure to light. Their ability to cure in seconds enables faster processing, greater output, and lower processing costs. Axis 921 has been qualified to the ISO 10993-5 to assist in the selection of products for use in the medical device industry.

APPLICATIONS	FEATURES	SUBSTRATES
<ul style="list-style-type: none"> Medical Adhesive 	<ul style="list-style-type: none"> Moisture Resistant 	<ul style="list-style-type: none"> Plastics
	<ul style="list-style-type: none"> Paste 	<ul style="list-style-type: none"> Metals
	<ul style="list-style-type: none"> RoHS compliant 	<ul style="list-style-type: none"> Ceramics
	<ul style="list-style-type: none"> Biocompatibility per ISO 10993-5 	

Typical Properties of Uncured Material*

Chemical Class	Acrylated urethane
Color	Clear
Viscosity, @25°C, Spn7 @5RPM, cps	120,000 to 150,000
Viscosity, @25°C, Spn7 @50RPM, cps	20,000 to 30,000
Specific Gravity	1.08
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	70
Elongation, %	35
Tensile Strength, MPa, [psi]	4400
Compressive Modulus @ -55°C, MPa	615
Compressive Modulus @ 0°C, MPa	200
Compressive Modulus @ 60°C, MPa	4
Glass Transition Temperature (T _g), °C	82
Lap Shear Strength, Acrylic / Acrylic, psi	>300
Temperature at 1% wt. loss, °C	200
Temperature at 5% wt. loss, °C	325
Processing Temperature Range, °C	-55 to 180

***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 921 was designed to be cured using a microwave UV oven. Arc and LED systems may cure AXIS 921; 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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