

AXIS 980

Technical Data Sheet

Medical device adhesive Axis 980 is designed for rapid bonding of plastics and metals typically used in the manufacture of medical devices. 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. When cured with UV light curing spot lamps, focused beam lamps, or flood lamps, they deliver optimum speed and performance for medical device assembly. Axis 980 has been qualified to the ISO 10993 Protocol to assist in the selection of products for use in the medical device industry.

APPLICATIONS	FEATURES	SUBSTRATES
<ul style="list-style-type: none"> • Needle bonding 	<ul style="list-style-type: none"> • UV/Visible light cure 	<ul style="list-style-type: none"> • Plastics
<ul style="list-style-type: none"> • Reservoirs 	<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
Viscosity, Part A @25°C, Spn 4 @20 RPM, cps	2200 - 3400
Specific Gravity	1.06
Cleanup Solvent	Isopropyl alcohol

UV Light Cure Guidelines*

Recommended Curing Spectrum	UVA
Minimum dosage required, J/cm ²	3

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 980 was designed to be cured using a microwave UV oven. Arc and LED systems may cure AXIS 980; 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.



Typical Properties of Cured Material*

Durometer, Shore D	70
Elongation, %	10
Tensile Strength, MPa, [psi]	37, [5400]
Compressive Modulus @ -60°C, MPa	411
Compressive Modulus @ 25°C, MPa	202
Compressive Modulus @ 160°C, MPa	1.5
Glass Transition Temperature (Tg), °C	59
Lap Shear Strength, Acrylic / Acrylic, psi	90
Refractive Index	1.5
Temperature at 1% wt. loss, °C	207
Temperature at 5% wt. loss, °C	267
Processing Temperature Range, °C	-60 to 160

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

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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