

# AXIS 1064

## Technical Data Sheet

AXIS 1064 is a low viscosity, UV-curable adhesive that will fluoresce under a black light to facilitate inspection of bonded assemblies. AXIS 1064 has a secondary heat cure that enables curing in shadowed areas. AXIS 1064 was designed for bonding stainless steel cannula into hubs, syringes, and lancets for needle assembly. Resin Designs medical device adhesives contain no nonreactive solvents and have been tested for biocompatibility per ISO 10993-5, cytotoxicity.

| APPLICATIONS  | FEATURES   | SUBSTRATES   |
|---|--|--|
| <ul style="list-style-type: none"> <li>Needle bonding</li> </ul>      | <ul style="list-style-type: none"> <li>UV curable</li> </ul>                       | <ul style="list-style-type: none"> <li>Plastics</li> </ul> |
| <ul style="list-style-type: none"> <li>Transducer assembly</li> </ul> | <ul style="list-style-type: none"> <li>Fluorescing</li> </ul>                      | <ul style="list-style-type: none"> <li>Metals</li> </ul>   |
|   | <ul style="list-style-type: none"> <li>Secondary heat cure</li> </ul>              | <ul style="list-style-type: none"> <li>Ceramics</li> </ul> |
|   | <ul style="list-style-type: none"> <li>Biocompatibility per ISO 10993-5</li> </ul> |  |

### Typical Properties of Uncured Material\*

|                                   |                    |
|-----------------------------------|--------------------|
| Chemical Class                    | Acrylated urethane |
| Color                             | Clear              |
| Viscosity @25°C, Spn1 @20RPM, cps | 50 to 225          |
| Specific Gravity                  | 1.02               |
| Cleanup Solvent                   | Isopropyl alcohol  |

### UV Light Cure Guidelines\*

|  |     |
|--|-----|
| Recommended Curing Spectrum                | UVA |
| Minimum dosage required, J/cm <sup>2</sup> | 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.

### Secondary Cure Guidelines\*

|                            |      |
|----------------------------|------|
| Cure Mechanism             | Heat |
| Cure Time @ 125°C, minutes | 10   |

AXIS 1064 was designed to be cured using a microwave UV oven. Arc and LED systems may cure AXIS 1064; 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                                 | 75           |
| Elongation, %                                      | 5            |
| Tensile Strength, MPa, [psi]                       | 29.6, [4300] |
| Compressive Modulus @ -55°C, MPa                   | 417          |
| Compressive Modulus @ 25°C, MPa                    | 195          |
| Compressive Modulus @ 145°C, MPa                   | 0.5          |
| Glass Transition Temperature (T <sub>g</sub> ), °C | 78           |
| Lap Shear Strength, PCB / PCB, psi                 | 190          |
| Temperature at 1% wt. loss, °C                     | 163          |
| Temperature at 5% wt. loss, °C                     | 288          |
| Processing Temperature Range, °C                   | -55 to 145   |

**\*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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**Resin Designs 11 State Street, Woburn, MA 01801**

**[www.resindesigns.com](http://www.resindesigns.com)**

**781-935-3133**