



- Pass ISO 10993-5 for cytotoxicity
- Pass ISO 10993-10 for sensitization and irritation
- Formulated without IBOA and TPO
- Compatible with common and difficultto-bond substrates, including PC, PI, PVC, TPU, & SS
- · Optimized for LED light curing
- Moisture and thermal shock resistant
- · Fluorescing grades available

# **Light-Curable Adhesives Designed with Skin Sensitivity in Mind**

## **Assemble Wearable Medical Devices Without Materials of Concern**

Dymax 2000-MW series of adhesives are designed for the assembly of wearable medical devices where materials of concern and proximity to skin matter. These products are formulated without IBOA and TPO, and pass ISO 10993-5 for cytotoxicity, as well as ISO 10993-10 for sensitization and irritation. 2000-MW series adhesives enhance the reliability of your wearable medical devices with their exceptional bond strength and dependable performance against moisture and thermal shock. They are engineered to provide strong bonds to a variety of substrates commonly used in the production of medical devices and deliver excellent performance when used with difficult-to-bond substrates. 2000-MW adhesives cure in seconds with light, and are optimized to cure with UV LED light. Additionally, some adhesives are formulated with fluorescing technology for quick and easy post-cure bond-line inspection.

#### **Products**

Products				٠								
Product	Features	Cure Mechanism	Nominal Viscosity, cP	Durometer Hardness	Water Absorption, % (25°C, 24h)	Tensile at Break, MPa [psi]	Modulus of Elasticity, MPa [psi]	10993-5 Cytotoxicity	10993-10 Irritation	10993-10 Sensitization	IBOA free	TP0 free
2022-MW	Ideal for general bonding, encapsulation, and coating; low water absorption	UV broad spectrum; UV LED 365 nm	750	D60	0.5	18.6 [2,700]	668.8 [97,000]	•	•	•	•	•
2101-MW-UR	Ideal for general bonding of medical wearables; adhesion to a variety of substrates including PC, PVC, TPU; Ultra-Red® fluorescing	UV broad spectrum; UV LED 405 nm	5,500	D80	2.1	24.8 [3,600]	1,020.4 [148,000]	•	•	•	•	•
2103-MW-UR	Ideal for general bonding of medical wearables; moisture resistant; adhesion to a variety of substrates including PC, PVC, TPU; Ultra-Red® fluorescing	UV broad spectrum; UV LED 405 nm	5,500	D70	0.1	13.8 [2,000]	448.2 [65,000]	•	•	•	•	•

#### **Applicable Devices**

- Medical smart monitoring devices
- Patient monitoring devices
- Large volume injectors
- Vital sign monitoring devices
- Hearing aids

- Continuous glucose monitors
- Diabetes care devices
- Pain management devices
- Sleep monitoring devices







Product	ABS acrylonitrile-butadiene-styrene	CAP cellulose acetate propionate	PA polyamide	PC polycarbonate	PCTG poly(cyclohexylene dimethylene terephthalate)glycol	PEBA polyether block amide	PEEK polyetheretherketone	PEI polyetherimide	PET poly(ethylene terephthalate)	PETG poly(ethylene terephthalate) glycol	PI polyimide	PMMA poly(methyl methacrylate)	PPO poly(phenylene oxide)	PS polystyrene	PSU polysulfone	PVC poly(vinyl chloride)	SAN styrene-acrylonitrile	TPU thermoplastic polyurethane	CER ceramic	GL glass: borosillicate, quartz, mica	FR4 glass-reinforced epoxy resin laminate	AL aluminum	BR brass	CRS cold rolled steel	CU copper	Ni-Plated SS	SS stainless steel	PCB printed circuit board
2022-MW	•	0		•	•						0	•	•	0			•	0		•		•	•				•	
2101-MW-UR	•			•	•			0		•				0		•	•	•		0	0							
2103-MW-UR	•			•		0								•		•		•									•	

Recommended adhesive

Limited applications

#### **Application Areas**

Dymax adhesives for wearable medical device assembly can be used in a number of applications throughout the device, such as:

- 1. Electronics Encapsulation
- 2. Needle-to-Hub Bonding
- 3. Edgebond
- 4. Battery Reinforcement
- 5. Wire and Flex Tacking
- 6. Assembly Bonding



### **Our Commitment to Greener, Safer Manufacturing**

Dymax is committed to green manufacturing that reduces environmental impact, conserves energy, and provides greater worker safety. Over the last 40 years, our light-curable materials and curing equipment have become the industry standard for fast, environmentally conscious assembly. Dymax products are readily replacing technologies that contain hazardous ingredients, produce waste, or require higher amounts of energy to process.



Eco-friendly, one-component materials



Materials without solvents and other materials of concern for improved worker and user safety



Fast curing products and equipment designed for less energy consumption

·•...



Dymax products conform to regulatory standards like RoHS and REACH



@2021-2023 Dymax Corporation. All rights reserved. All trademarks in this guide, except where noted, are the property of, or used under license by, Dymax Corporation, U.S.A.