



Medical Solutions

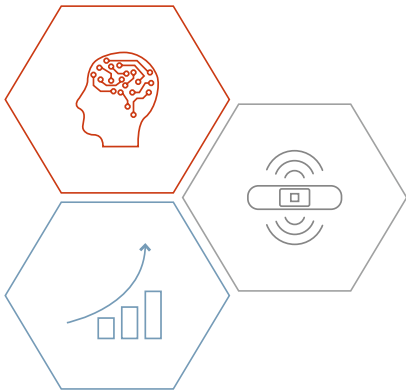
DuPont™ Liveo™
Silicone Skin Adhesives

Dymax 2000-MW series
UV-curing adhesives

Medical Polymers

Delrin, Celanese, Solvay,
Syensqo, Chimei, USI &
BASF

**Spotlight
Wearables**



A medical wearable is a device worn on or in close proximity to the body that is designed, approved or regulated to monitor, diagnose, treat or manage medical conditions. Key characteristics include clinical accuracy, regulatory compliance (FDA, CE, etc.), often secure and private data handling, and integration with healthcare providers or intervention workflows. Over recent years, medical wearables have moved from niche clinical tools to more mainstream use. Advances in sensor technology, miniaturization, wireless connectivity, and AI/data analytics have enabled devices that are more comfortable, affordable, and capable of continuous monitoring.

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The rise of chronic disease prevalence (diabetes, cardiovascular disease, respiratory conditions, etc.), demographic trends (aging populations), and growing emphasis on preventive healthcare and remote patient monitoring have driven demand.

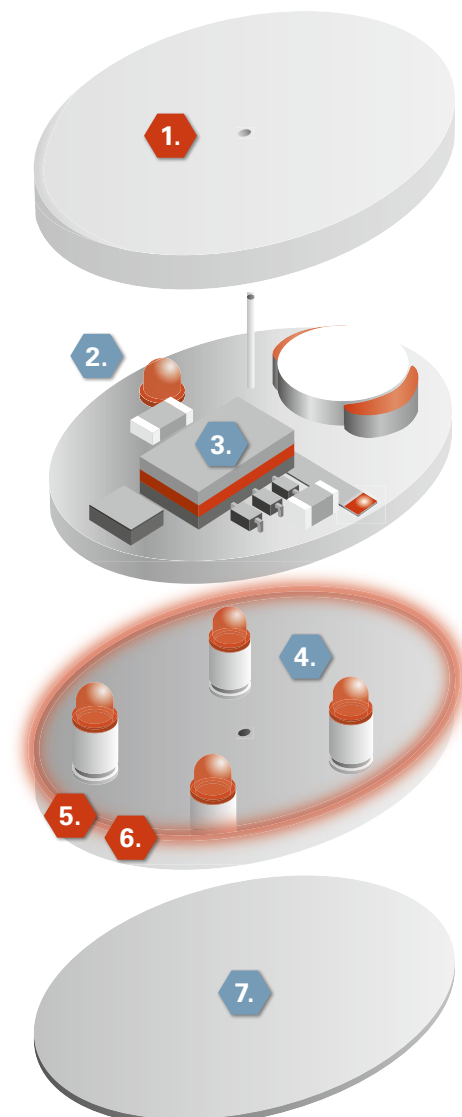
Over the past decade, the medical wearables market has evolved from niche clinical tools into a fast-growing, mainstream healthcare segment. Looking ahead, the global market is on track to multiply more than fourfold, expanding at a CAGR of over 20% to reach beyond USD 150 billion by 2030.

Sources: Fortune Business Insights. (2024). *Wearable Medical Devices Market Size, Share & Industry Analysis, By Product, By Application, By Grade, By Distribution Channel, and Regional Forecast, 2024-2032*. Retrieved from [FortuneBusinessInsights.com](https://www.fortunebusinessinsights.com) Fortune Business Insights

Grand View Research. (2025). *Europe Wearable Medical Devices Market Size & Outlook, 2025-2030*. Retrieved from [GrandViewResearch.com](https://www.grandviewresearch.com) Grand View Research

Wearable medical devices are built of several unique layers

1. Chimei PC Wonderlite® Housing (single use)
Syensqo PPSU Radel® Housing (reusable)
USI COC Vivion® Microfluidic parts (reusable),
Delrin® POM Homo Gears or moving parts,
Celanese Crastin PBT Structural or housing parts
2. Dymax® Electronics Encapsulation
3. Dymax® Needle-to-Hub Bonding
4. Dymax® Assembly Bonding
5. Celanese TPV Santoprene® MED Seals
6. BASF TPU Elastollan® Overmolds
7. Dupont™ Liveo™ Silicone Skin-Adhesives



Dymax 2000-MW Series UV-curing Adhesives



Dymax 2000-series adhesives are uniquely designed for assembly of wearable medical devices. Formulated without skin-irritants, the series provides strong bonds and dependable performance against moisture and thermal shock.

| Material ID | Unique material features | Recommended substrates |
|-------------------|--|---|
| 2022-MW | <ul style="list-style-type: none"> – 750 cP – D60 (ShoreA) – LED-optimized for 365 nm – low water absorption – ISO 10993-5/10 – IBOA & TPO free | SS, Aluminum, Glass, SAN, PU, PI, PETG, PC, ABS |
| 2101-MW-UR | <ul style="list-style-type: none"> – 5500 cP – D80 (ShoreA) – LED-optimized for 405 nm – Ultra-red fluorescence – ISO 10993-5/10 – IBOA & TPO free | ABS, PC, PCTG, PETG, PVC, TPU |
| 2103-MW-UR | <ul style="list-style-type: none"> – 5500 cP – D70 (ShoreA) – LED-optimized for 405 nm – Ultra-red fluorescence – ISO 10993-5/10 – IBOA & TPO free | PC, ABS, PVC, PEBA, SS |
| 1901-M | <ul style="list-style-type: none"> – 3000 cP – A67 (ShoreA) – for sealing, conformal coating or encapsulation of electronic circuit boards & components | CAP, PS, TPU, PCB (flexible & rigid) |

DuPont™ Liveo™ Silicone Skin Adhesives



| Material ID | Unique material features | Application areas |
|--------------------------|---|---|
| Liveo™ MG 7-9900 | <ul style="list-style-type: none"> – soft-skin-adhesive – two-part (A&B) – 1,9 N/2,5cm (PC) – 5000 mPas (A&B) – 140 mm/10 (Penetration after cure) | medium adhesion to the skin with gentle removal, OTC bandages, scar therapy gels, advanced wound care dressings |
| Liveo™ MG 7-9960* | <ul style="list-style-type: none"> – soft-skin-adhesive – two-part (A&B) – 2,8 N/2,5cm (PC) – 4400 mPas (A&B) – 145 mm/10 (Penetration after cure) | medium to high adhesion to the skin, specifically designed for wearable medical device fixation |
| Liveo™ MG-2401 | <ul style="list-style-type: none"> – pressure-sensitive-adhesive – one-part solvent-based (HMDS) – 17,2 N/2,5cm (PC) – 90 mPas | high & durable adhesion to the skin, specifically designed medical devices such as stoma-patches, surgical dressings/pads, external prosthetic devices and patient monitoring |

Medical Polymers



| Material (incl. supplier) | Key Properties | Typical Applications | Medical Conformities / Approvals |
|-------------------------------------|--|--|---|
| Delrin® (Delrin) | POM homopolymer, self-lubricating, dimensionally stable, also available as bio-based version | Small gears, moving parts in insulin pumps | USP Class VI, ISO 10993, FDA compliant grades |
| Crastin® Celanex® (Celanese) | PBT, good chemical resistance, good colorability | Housing components, structural parts in wearables | USP Class VI, ISO 10993-5/-10, FDA 21 CFR §177.1660 |
| Radel® (Solvay/Syensqo) | PPSU, high heat resistance, hydrolysis-resistant, steam sterilizable | Reusable housings for medical devices | USP Class VI, ISO 10993 (various), suitable for repeated steam sterilisation |
| Wonderlite® (Chimei) | PC, transparent, high impact resistance, medical approvals | Transparent or colored housings for single-use devices | ISO 10993-5/-10, USP Class VI, FDA 21 CFR §177.1580 |
| ViviOn™ COC (USI) | COC, excellent barrier properties, good chemical resistance | Drug reservoirs in wearables or infusion systems | ISO 10993-5/-10/-11, USP Class VI, EU 10/2011 compliant |
| Santoprene® (Celanese) | TPV, soft touch, skin contact approved, excellent sealing performance | Soft parts, skin contact components, seals | USP Class VI, ISO 10993-4/-5/-10/-11, FDA 21 CFR §177.2600 |
| Elastollan® (BASF) | TPU, elastic, high resilience, transparent, hydrolysis-resistant | Protective overmolding, elastic components | USP Class VI, ISO 10993-5/-10/-11, selected grades FDA and EU 10/2011 compliant |

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