



» APPLICATION BULLETIN

TRANSFORMING HEALTHCARE WEARABLE MEDICAL DEVICES

Your goal is to help healthcare professionals improve the lives of their patients. In today's fast-paced world, patients need to be able to continue to live their lives while receiving treatment. The consumer trend has turned to wearables in recent years, and the medical device industry is no exception. By designing medical devices that can deliver lifesaving drugs, monitor dangerous heart arrhythmias, or even store and transmit patient body movement data, you're helping doctors and nurses improve the overall patient experience.

Wearable medical devices stay in contact with the body for extended periods of time, and as such, it is an important consideration when designing your device. Specific device requirements and regulatory protocols can also present challenges during the part design process. We're here to help.

Whether your device must use adhesives and meet certain skin-contact protocols, or needs to stand up to harsh disinfectants, aggressive drugs or sterilization procedures, we can help with a broad range of medical grade materials and a dedicated healthcare support team. Do you need to design a smaller, streamlined device that is comfortable and non-intrusive? Or perhaps you're looking to incorporate colorants that are FDA-approved for biocompatibility? Avient Distribution is prepared to help, from concept to marketplace and every step in between.

 MORE THAN
MATERIALS

 AVIENT™

PATIENT HEALTHCARE ON-THE-GO

Giving patients the option to take an easier and more comfortable path to health is appealing. Your cutting-edge wearable design could be the key to providing new alternatives to traditional doctor-patient interactions. By providing consistent monitoring, wearable devices can help doctors better predict and prevent or diagnose and treat health conditions such as cardiovascular diseases, diabetes, Alzheimer's and epilepsy. Avient Distribution can help you take your next idea and make it a reality.

ERGONOMICS

Soft Touch, Easy to Grip
SOLUTION: Thermoplastic Elastomers (TPEs), Thermoplastic Urethanes (TPUs), Silicone

SURFACE PROTECTION

Performance Enhancing Additives
SOLUTION: Anti-Microbial Additives, Scratch and Mar Additives



MECHANICAL PERFORMANCE

Wear-Resistance
SOLUTION: Polyester (PET), Nylon (PA), Acetal (POM)

TOUGHNESS

Impact Strength, Chemical Resistance
SOLUTION: PC/Polyester Blends, Copolyester

TACTILE EXPERIENCE

Enhanced Ergonomics, Skin-Compatible Comfort, Excellent Colorability
SOLUTION: Thermoplastic Elastomers (TPEs), Thermoplastic Urethanes (TPUs), Silicone

FUNCTIONALITY

Impact Resistance, Dimensional Stability, Strength
SOLUTION: Copolyester, PC/Polyester Blends, Polycarbonate, Styrenics

AESTHETIC APPEAL

Metallic and Custom Effects, FDA-Approved Masterbatch Colorants
SOLUTION: Custom Polymer Colorants, Pre-Colored Resins



DURABILITY

Impact Strength, Rigid or Flexible Materials
SOLUTION: Thermoplastic Elastomers (TPEs), Thermoplastic Urethanes (TPUs), Copolyester, Polycarbonate, PC Blends, PMMA, Styrenics, Nylon (PA), Silicone

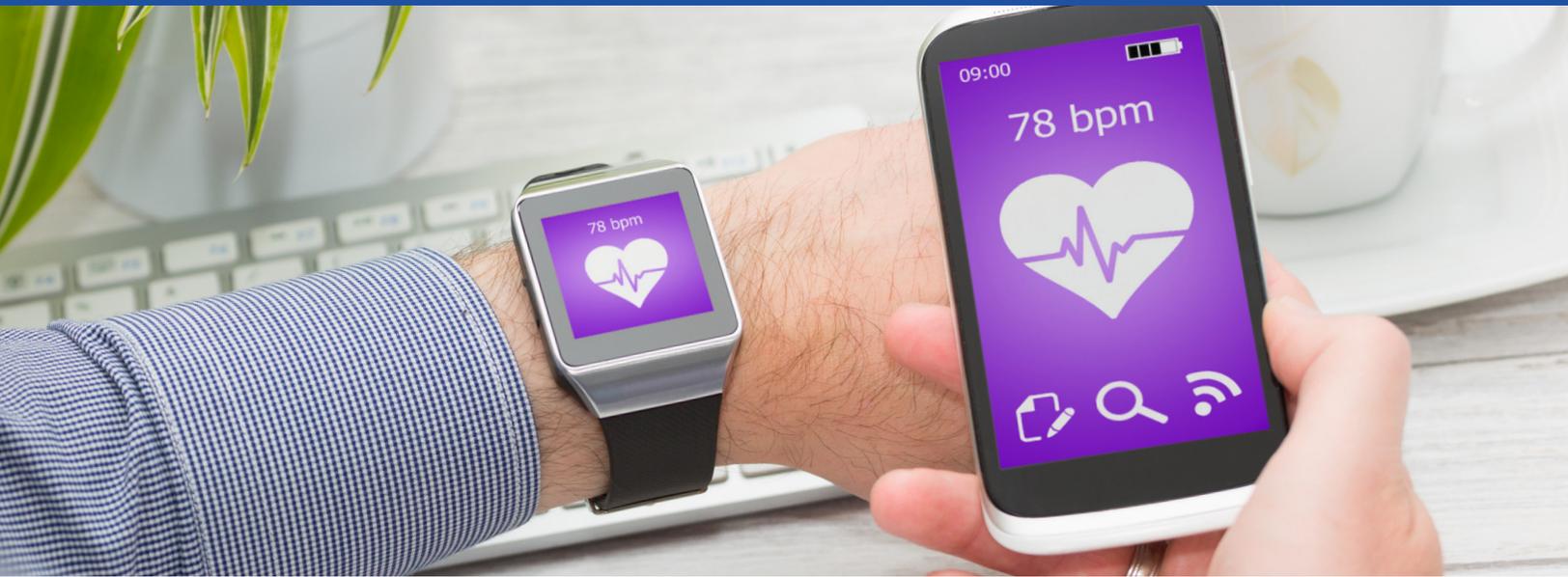
WEARABLE COMFORT

Flexibility Skin-Compatible Comfort, Soft Touch
SOLUTION: Thermoplastic Elastomers (TPEs), Thermoplastic Urethanes (TPUs), Silicone



A GOOD FIT

HEALTHCARE WEARABLE DEVICES



When you're ready to go from an idea to an innovative, life-changing device, we're here to help. From concept to marketplace, we can offer a comprehensive approach to product development designed to help you with design, the regulatory process, material selection and manufacturing support. But most importantly, we'll help you develop a device that improves patients' lives. Count on Avient Distribution to help you create wearable devices that make a difference.

Wearable Medical Devices for Improved Patient Experience

Examples include:

- Ambulatory Pumps & Monitors
- Glucose Monitoring & Insulin Dispensing
- Sleep Tracking Wearables
- Pain Management Wearables
- Mobile EKG Heart Monitors
- Mobility Analysis Wearables
- Blood Pressure Monitors
- Smart Sensor Patches
- Smart Clothing
- Wearable Defibrillators

1.844.4AVIENT
www.avientdistribution.com



Copyright © 2021, Avient Corporation. Avient makes no representations, guarantees, or warranties of any kind with respect to the information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the information. Avient makes no warranties or guarantees respecting suitability of either Avient's products or the information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the information and/or use or handling of any product. AVIENT MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the information or products reflected by the information. This literature shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.