



## » APPLICATION BULLETIN

# MISSION CRITICAL DRUG DELIVERY DEVICES

Healthcare professionals depend on devices such as IVs, syringes and insulin pens to administer important medications that keep patients healthy.

When your goal is to improve the lives of both patients and healthcare professionals, you know it's critical to integrate the needs of both groups into the earliest phases of a product development lifecycle.

We can help you make informed decisions about material selection based on your specific device requirements and the regulatory protocols that apply. Whether your device must stand up to harsh disinfectants, aggressive drugs or sterilization protocols, we can help with a broad range of medical grade materials and related options. Do you have a need for colorants that are FDA-approved for biocompatibility, or perhaps need improved ergonomics and better grip? Avient Distribution

can help at every step of the product development process, from material selection and regulatory compliance to technical support and supply chain optimization.

In addition to regulatory requirements that protect patient safety such as ISO 10993 and USP Class VI, many drug delivery devices, such as IVs, syringes, and insulin pens must also meet ISO 10993-5 and 10993-10, protocols put in place to protect patient skin from irritation and sensitivity. We understand that you need to keep regulatory requirements at the forefront of every material selection and design choice you make, but product functionality and patient safety are also imperative to your design choices.



**+** MORE THAN  
MATERIALS

**AVIENT™**

# WHEN PATIENT HEALTH IS CRITICAL

When a patient's health improves, it is often a result of the quality care and teamwork provided by healthcare professionals and caretakers. Your device can play a critical role in that success. Count on Avient Distribution to help you design devices that strive for mission-critical performance.



**EFFECTIVENESS**  
Chemically Resistant,  
Biocompatible, Sterilizable  
**SOLUTION:** Tubing - Thermoplastic Polyurethane (TPU), Thermoplastic Elastomers (TPE); Connector - Copolyester, Polycarbonate (PC)

**CLARITY**  
Chemical Resistance,  
Impact Resistance,  
Rigidity  
**SOLUTION:** Polycarbonate, Copolyester, PMMA, Nylon (Polyamide)

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

**SURFACE PROTECTION**  
Performance Enhancements  
**SOLUTION:** Anti-Microbial Additives, Scratch and Mar Additives



**WEARABLE COMFORT**  
Skin-Compatible Comfort,  
Secure Attachment  
**SOLUTION:** Lubricated Silicone Adhesives

**TACTILE EXPERIENCE**  
Soft-Touch Feel, Easy to Grip  
**SOLUTION:** Thermoplastic Elastomers (TPE), Thermoplastic Polyurethane (TPU), Silicone



**EFFECTIVENESS**  
Enhanced Usability,  
Chemical Resistance,  
Dimensional Stability  
**SOLUTION:** Styrenics, PMMA, Nylon (Polyamide)



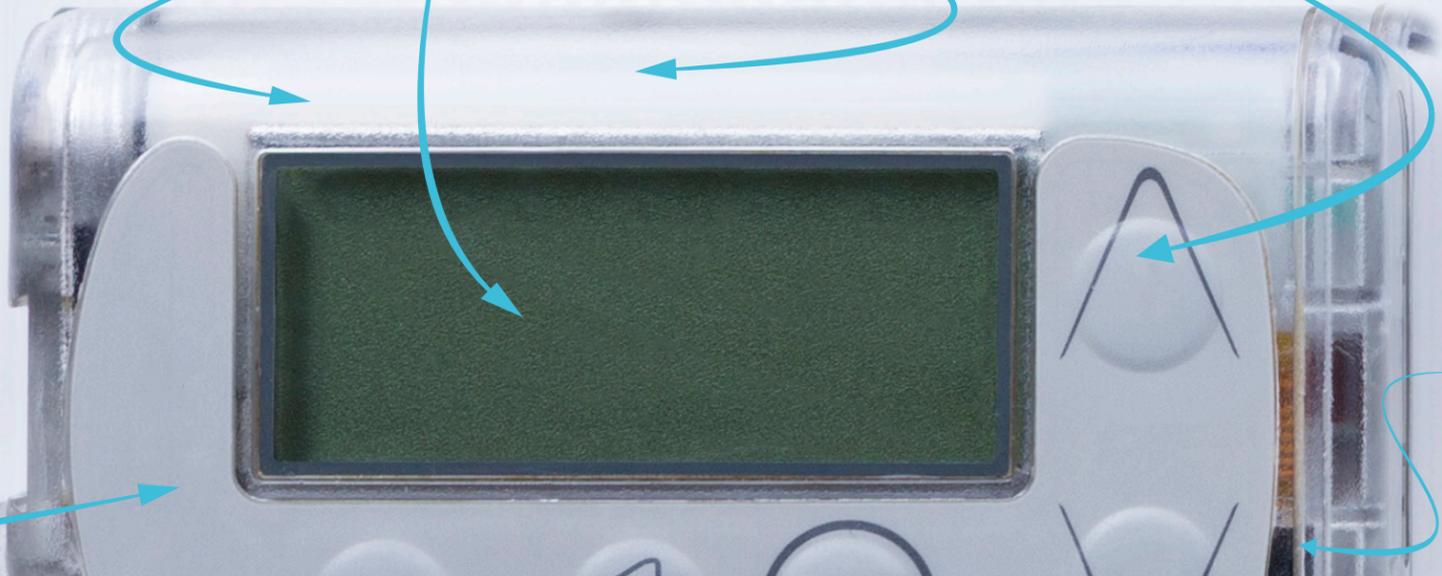
**RELIABILITY**  
Clear, Biocompatible,  
Durable  
**SOLUTION:** Polyolefin

**MECHANICAL PERFORMANCE**  
Wear-Resistance  
**SOLUTION:** Polyester (PET), Nylon (Polyamide), Acetal



**PERFORMANCE**  
Streamlined Manufacturing,  
Resealing Performance,  
Coring Resistance  
**SOLUTION:** Thermoplastic Elastomers (TPE)

**AESTHETIC APPEAL**  
FDA-Approved Masterbatch Colors  
**SOLUTION:** Custom Polymer Colorants, Pre-Colored Resins



# GOOD NEWS FOR DRUG DELIVERY DEVICES

Good news in a healthcare environment is always welcome. Our comprehensive approach to product development assistance is designed to help you create devices that qualify under regulatory requirements and help to improve patient well-being.

## Drug Delivery Devices for Improved Patient Well-Being:

- IV y-Site
- Luers
- Needleless Valves
- Stopcocks & Connectors
- Drip Chambers
- Syringes
- Inhalers
- Injector Pens



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