





Healthcare Supplier Line Card

MATERIAL SOLUTIONS ADVANCING HEALTHCARE





### Solid, Trusted, Proven

Offering unparalleled industry knowledge, supply chain excellence, and an expansive material portfolio combined with our unmatched technical expertise, we come alongside our customers, offering support and solutions to ignite collaboration and drive success.



### **Am**Sty



























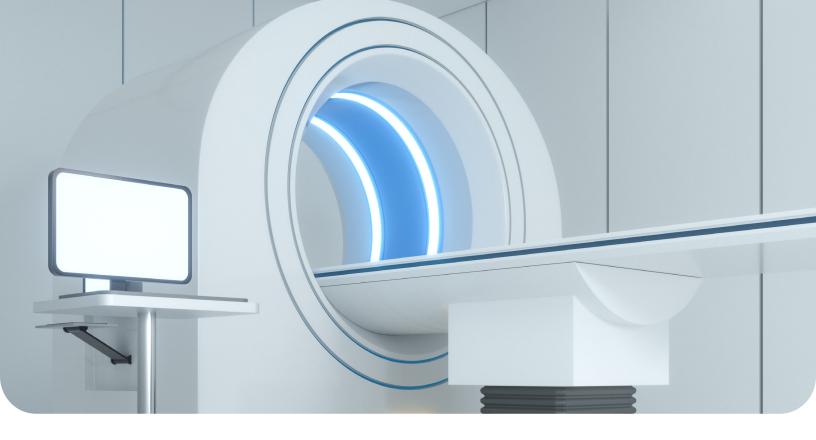












# Healthcare Trends & Market Dynamics

The world has become very different in recent years, and it is more evident than ever within healthcare. Consumers are more interested in understanding and tracking their health from a non-clinical remote location, at home, or on the go. As a result, this evolving landscape will provide patients and practitioners with innovative products in healthcare around advanced technology within medical wearables, drug delivery devices, remote patient monitoring, labware, and diagnostic testing kits.



## Formerra's Healthcare Focus Areas

As this new patient-centric approach enters the marketplace, needs and priorities will shift. With over 20 years of material and regulatory experience, Formerra's expert team understands the medical regulatory environment, leveraging decades of experience to select best-fit materials, reduce supply-chain risk, and improve production efficiencies. We regularly study market drivers and trends, including those that influence key healthcare applications:

- · Drug Delivery Devices
- · Wearable & Remote Patient Monitoring
- · Labware & Diagnostics
- · Catheters & Tubing
- Fluid Management
- · Medical & Surgical Equipment
- · Medical & Pharmaceutical Packaging

## How Can We Help You Succeed?

When designing for the healthcare industry, developing robust, high-performing components, reliable manufacturing, and unfailing supply chain operations is imperative. Our dedicated healthcare team is here to help with:

**Design Assistance and Material Selection Guidance:** providing extensive application knowledge and a broad portfolio of specialty medical materials

Accelerate Time to Market: aligning technical and manufacturing support Simplify your Business: optimizing supply chain and logistics

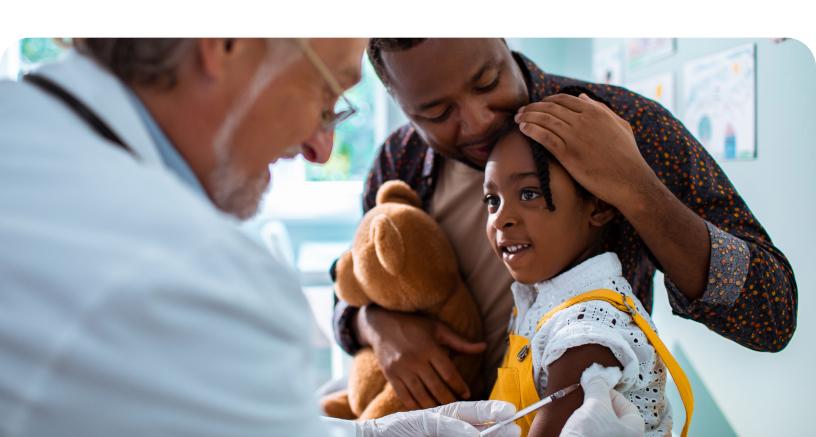
RIGID POLYMERS				
Product Family	Supplier	Sterilization	Regulatory	Clarity
ABS	INEOS Styrolution <sup>™</sup>	Gamma/EtO/E-Beam/NO2	USP Class VI, ISO 10993, FDA	Opaque
Acrylic/PMMA	Trinseo*	Gamma/E Beam (may discolor), EtO	USP Class VI, FDA	Transparent
Blends & Alloys	Avient <sup>®</sup> , Covestro <sup>®</sup> , Trinseo <sup>®</sup> , INEOS Styrolution <sup>®</sup>	Gamma/E Beam, EtO	USP Class VI, ISO 10993	Opaque/Transparent
Cellulosic	Eastman®	Gamma/E Beam, EtO	USP Class VI, ISO 10993	Transparent
EVA	Celanese, Dow®, Westlake <sup>™</sup>	Gamma/E Beam, EtO	USP Class VI, FDA	Opaque/Transparent
HDPE, LDPE, ULPE	Dow®, Chevron Phillips Chemical™, Westlake™	Gamma/E Beam, EtO	USP Class VI, FDA	Opaque/Translucent
HIPS & GPPS	Americas Styrenics <sup>™</sup>	Gamma/E Beam (may discolor), EtO (avoid repeated cycles)	USP Class VI, FDA	Transparent
Liquid Crystal Polymer (LCP)	Celanese	Gamma, EtO, Repeated Autoclave	USP Class VI, ISO 10993	Opaque
mABS	INEOS Styrolution <sup>™</sup>	Gamma/EtO/E-Beam/NO2	USP Class VI, ISO 10993, FDA	Transparent
MBS	INEOS Styrolution <sup>™</sup>	Gamma/EtO/E-Beam/NO2	USP Class VI, ISO 10993, FDA	Transparent
Polyamides	Avient <sup>™</sup> , Celanese	Gamma/E Beam (may discolor), EtO	USP Class VI, ISO 10993, FDA	Opaque
PBT, PET	Covestro <sup>™</sup> , Celanese	Gamma/E Beam (may discolor), EtO	USP Class VI, ISO 10993, FDA	PBT – Opaque PET – Transparent
Copolyester	Eastman®	Gamma/E Beam (may discolor), EtO	USP Class VI, ISO 10993, FDA	PBT – Opaque PET – Transparent
PC	Covestro <sup>®</sup> , Trinseo <sup>®</sup>	Gamma/E Beam (may discolor), EtO, Autoclave (limited)	USP Class VI, ISO 10993	Transparent
POM	Delrin	EtO	USP Class VI, ISO 10993, FDA	Opaque
PP	Formerra Verity TM., LyondellBasell", INVISTA", INEOS", GEON® Performance Solutions, Pinnacle Polymers"	Gamma/E Beam (must be stabilized), EtO	USP Class VI, FDA	Translucent/ Transparent
Polyphenylene Sulfide (PPS)	Celanese	Gamma, EtO	USP Class VI, ISO 10993	Opaque
PSU, PPSU	BASF"	Gamma/E Beam, EtO, Autoclave	USP Class VI, ISO 10993, FDA	Transparent
PVC	GEON® Performance Solutions	Gamma/E Beam (must be stabilized), EtO (must be out-gassed)	USP Class VI, FDA	Transparent
SAN	INEOS Styrolution	Gamma/Et0/E-Beam/N02	USP Class VI, ISO 10993, FDA	Transparent
SBC	INEOS Styrolution"	Gamma/EtO/E-Beam/NO2	USP Class VI, ISO 10993, FDA	Transparent
SMMA	INEOS Styrolution	Gamma/Et0/E-Beam/NO2	USP Class VI, ISO 10993, FDA	Transparent

### THERMOPLASTIC ELASTOMERS (TPEs)

Product Family	Supplier	Sterilization	Regulatory	Clarity
ENG TPE	Celanese	Gamma/E Beam, EtO	USP Class VI, ISO 10993, FDA	Opaque
fPVC	GEON® Performance Solutions	Gamma/E Beam (must be stabilized), EtO (must be out-gassed)	USP Class VI, FDA	Transparent
POE	Dow <sup>®</sup>	Gamma/E Beam, EtO	USP Class VI, FDA	Opaque/Transparent
SEBS	Avient	Gamma/E Beam, EtO	USP Class VI, FDA	Transparent
S-TPE	INEOS Styrolution	Gamma/Et0/E-Beam/N02	USP Class VI, ISO 10993, FDA	Transparent
TPU	Covestro <sup>™</sup>	Gamma/E Beam (may discolor), EtO	USP Class VI, ISO 10993, FDA	Transparent
TPV	Avient <sup>™</sup> , Celanese	Gamma/E Beam (may cause loss in physical properties), EtO	USP Class VI, FDA	Opaque

#### THERMOSET ELASTOMERS

Product Family	Supplier	Sterilization	Regulatory	Clarity
Silicone	DuPont <sup>™</sup> Liveo	Gamma, EtO, Autoclave	USP Class VI, ISO 10993, FDA	Transparent







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