Formerra™

Product Selection Guide

FORMERRA HEALTHCARE SOLUTIONS

Labware & Point-of-Care Diagnostics

Labware & Point-of-Care Diagnostics

As healthcare trends shift from reactive treatment to proactive prevention, diagnostic tests aid healthcare professionals and patients in accessing test results more frequently. Due to this, it is critical labware and diagnostics perform with reliable predictability.

If you aim to select the perfect material for rigid and flexible components of your medical devices, you're in the right place.

Formerra can help you solve your toughest application challenges by providing a specialized approach to the latest material technologies. With a dedication to sustainable solutions, technical and logistics expertise and innovative design engineering capabilities, we can help you deliver safe and reliable, industry-leading products to patients, caregivers, and medical professionals alike.

Our Suppliers

In addition to maintaining an effective manufacturing and supply chain operation, you're faced with designing products that must meet strict regulatory and quality assurance standards. At Formerra, we help you achieve these goals with our comprehensive portfolio of leading suppliers, on-time delivery and a host of services focused on helping you succeed.

AmSty
AVIENT
Celanese
The chemistry inside innovation™
covestro
DOW
DUPONT
EASTMAN
GEON
Performance Solutions
INEOS Olefins & Polymers USA
INEOS STYROLUTION
INVISTA™
POLYPROPYLENE
LYB LyondellBasell
Pinnacle Polymers
TRINSEO

Rigid Components

Biotech/Life Sciences, Chemical, Clinical, Environmental, Food & Materials Testing

Applications include:

- Flasks
- Bottles
- Pipettes
- Trays
- Vials
- Lids
- Collection cups
- Beakers
- Test tubes
- Funnels
- Diagnostic Kits

Rigid Component Solution Needs:

- Materials compliant with ISO 10993 & USP Class VI, if required
- Shatterproof & chip-resistant materials
- Low cost disposables
- Security of supply
- Chemical resistance
- Transparency
- Materials that can withstand wide temperature variations

Copolyester, Rigid TPU, PVC & PVC Blends		
Copolyester	Eastman Eastar™, Durastar™ & Tritan™ (Copolyester)	Thick- and thin-walled applications with glass-like appearance; improved toughness and reduced weight; chemical resistance to drugs, solvents, lipids, and disinfectants; preserves clarity and exhibits almost no color shift after sterilization
Rigid Thermoplastic Polyurethane (TPU)	Covestro Texin® (TPU)	Biocompatible; sterilizable; excellent chemical resistance; bondable to polar substrates like PC; rigid 65 to 80 Shore D grades
Rigid Polyvinyl Chloride (PVC)	GEON Performance Solutions Resilience™ HC (PVC)	Excellent chemical resistance; physical integrity after chemical exposure; custom colors available; excellent solvent bonding to PVC
Rigid Polyvinyl Chloride/ABS (PVC/ABS)	GEON Performance Solutions Geon® HTX™ (PVC/ABS)	High temperature resistance; excellent chemical resistance; physical integrity after chemical/cleaner exposure; color branding available; excellent solvent bonding to PVC tubing
PC, PA & PMMA		
Polycarbonate (PC)	Covestro Makrolon® (PC)	Rigidity, toughness and clarity
PolyMethyl Methacrylate (PMMA)	Trinseo Plexiglas® Acrylics	Clarity; easy processing; BPA free; lightweight; chemical resistance; impact resistance
	Trinseo Plexiglas® SG Acrylics	Easy processing; BPA free; transparency; impact resistance; chemical resistance; lightweight, sterilizable by gamma and EtO
	Trinseo Plexiglas® VS-UVT Acrylics	Clarity; easy processing; BPA free; lightweight; UV transparency for diagnostic applications

Rigid Components

Biotech/Life Sciences, Chemical, Clinical, Environmental, Food & Materials Testing

Applications include:

- Flasks
- Bottles
- Pipettes
- Trays
- Vials
- Lids
- Collection cups
- Beakers
- Test tubes
- Funnels
- Diagnostic Kits

Rigid Component Solution Needs:

- Materials compliant with ISO 10993 & USP Class VI, if required
- Shatterproof & chip-resistant materials
- Low cost disposables
- Security of supply
- Chemical resistance
- Transparency
- Materials that can withstand wide temperature variations

High Performance Polymers		
Liquid Crystal Polymer (LCP)	Celanese Vectra MT (LCP)	High stiffness, high aspect ratio features, capable of thin wall molding and appropriate for direct tissue contact temperature properties
Styrenic Blends		
Styrenic Blends	Trinseo MAGNUM™ (ABS)	Opaque; custom colors; excellent impact and flow; low residuals; ISO 10993 tested
	AmSty STYRON™ (GPPS)	General purpose (crystal) polystyrene; good clarity; stiff; easy processing with no pre-drying needed; good heat distortion resistance; excellent gloss, feel and appearance; excellent dimensional stability; sterilizable (except autoclave)
	AmSty STYRON™ (HIPS)	High impact polystyrene; opaque; impact resistant; easy processing with no pre-drying needed; good heat distortion resistance; glossy to matte surfaces available; excellent feel and appearance; excellent dimensional stability; sterilizable (except autoclave)
	INEOS Styrolution Zylar® & Clearblend® (MBS)	Exceptional toughness; excellent clarity; low specific gravity; no pre-drying needed; excellent thermal stability; superior chemical resistance
	INEOS Styrolution NAS® (SMMA)	Sparkling clarity; color neutrality; good rigidity; easy processing; no pre-drying needed; excellent alcohol resistance
	INEOS Styrolution Luran®SAN	Rigid; heat resistant; outstanding transparency; good overall chemical resistance; superior processing; good scratch resistance
	INEOS Styrolution Styrolux® and K-Resin R (SBC)	Good transparency and excellent toughness; easy and versatile processing; great for adding toughness to styrenic polymer blends
	INEOS Styrolution Terlux® HD (MABS)	Good clarity; good heat and overall chemical resistance; good impact strength; good solvent bonding to PVC; outstanding surface quality
	INEOS Styrolution Novodur® HD (ABS)	Opaque appearance; outstanding chemical resistance; high impact strength; excellent balance of properties; ease of processability; bondable
PP & PE		
Polypropylene (PP) & Polyethylene (PE)	INVISTA™ (PP)	Good clarity; strength; flexible and rigid options; easy processing; good chemical resistance; sterilizable grades available
	Pinnacle™ (PP)	
	Dow™ HEALTH+ Polymers™ (PE)	
	Lyondellbasell™ (PP) & (PE)	

Flexible Components

Biotech/Life Sciences, Chemical, Clinical, Environmental, Food & Materials Testing

Applications include:

- Caps
- Closures
- Septa
- Well pads
- Stoppers

Flexible Component Solution Needs:

- Materials compliant with ISO 10993 & USP Class VI, if required
- Automation
- Seal integrity
- Flow control
- Improved handling & grip

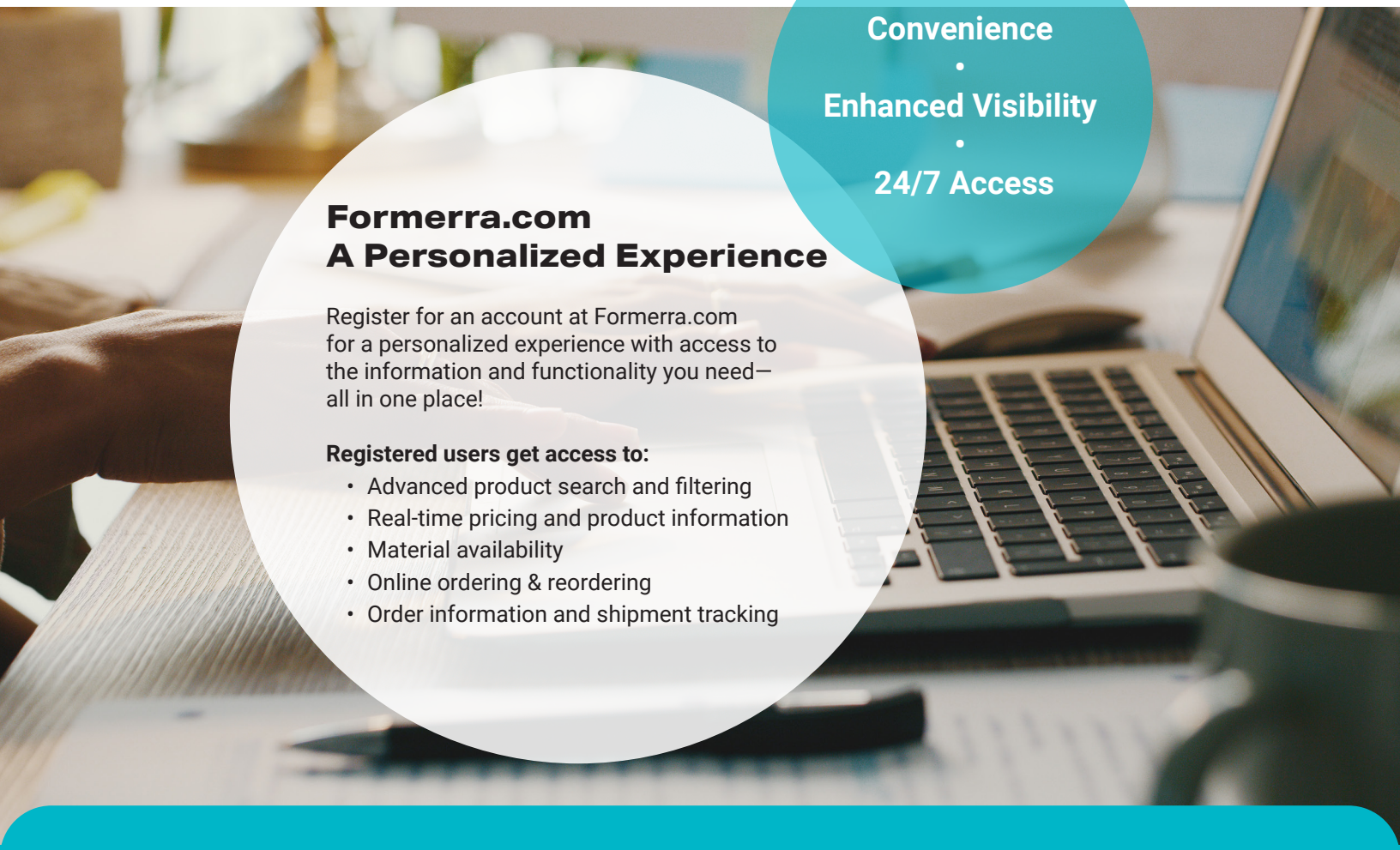
TPE, TPC-ET, TPU, TPV & Flexible PVC		
Thermoplastic Elastomers (TPE)	Avient Versaflex™ HC Gasket & Stopper Series (TPE)	Proven HC solutions with hardness ranges 34–59 Shore A; autoclave, radiation and EtO sterilizable; re-sealability; good compression set; low extractables; good overmold adhesion to PP; good low temperature properties
Thermoplastic Polyester Elastomers (TPC-ET)	Celanese Hytrel® (TPC-ET)	Wide range of flexibility, stiffness, and processing options; Shore D between 30–82; BPA-free; excellent flex fatigue and toughness; low temperature flexibility; good chemical resistance; grades with regulatory support available
Thermoplastic Polyurethane (TPU)	Covestro Texin® (TPU)	Biocompatible; soft touch; sterilizable; good chemical resistance; excellent bonding to polar substrates like PC; soft 70 to 90 Shore A grades
Thermoplastic Vulcanizate (TPV)	Avient Versalloy™ HC Series (TPV)	Proven HC solutions with hardness range 45–90 Shore A; autoclave, radiation and EtO sterilizable, good compression set, low extractables, bondable to PPg
	Celanese Santoprene™ (TPV)	Durable sealing performance; elastic recovery; excellent chemical resistance; compliance with medical standards
Flexible Polyvinyl Chloride (PVC)	GEON Performance Solutions Geon™ Flexible PVC	Engineered exclusively for the healthcare market; transparent and opaque colors; durometer range from 55A to 40D; gamma and EtO sterilizable
Thermoset Silicone Elastomers		
Thermoset Silicone Elastomers/Liquid Silicone Rubber (LSR)	DuPont™ Liveo™ Silicone Elastomers (LSR)	Biocompatible; non-irritating and non-sensitizing; sterilizable; made without plasticizers, phthalates or latex
SBC Copolymer		
Styrene Butadiene Copolymer (SBC)	INEOS Styrolution Styroflex® (SBC)	Rubber-like mechanics; outstanding resilience; toughness and transparency; extremely high elasticity; excellent bonding to other polymers

Solutions For Labware & Diagnostics

Custom Solution Needs	Formerra™ Custom Solutions
FDA-registered pre-colored resins and masterbatch options, color coding for safety and brand recognition	Formerra collaborates with key material suppliers to provide FDA-approved pre-colored resins

Formerra

From concept through distribution, our expertise is at your service.



Convenience
•
Enhanced Visibility
•
24/7 Access

Formerra.com
A Personalized Experience

Register for an account at Formerra.com for a personalized experience with access to the information and functionality you need—all in one place!

Registered users get access to:

- Advanced product search and filtering
- Real-time pricing and product information
- Material availability
- Online ordering & reordering
- Order information and shipment tracking

Take The Next Step

Visit **Formerra.com** to:

- Explore solutions by material properties, industries, and suppliers
- Register for an account to gain access to personalized information, ordering, and more!

We're Here To Help

For general inquiries or customer service
Call **1.888.502.0951**

For polymer technical support
Email **phd@formerra.com**

Capabilities

Design Support

Market Intelligence

Material Selection

Custom Formulations

Manufacturing Optimization

Technical Support

Supply Chain Optimization

Regulatory Compliance Support

Global Reach

2024-12-SGUIDE-LABWARE-POINTOFCARE