

CHEMISTRY THAT MATTERS™

سابک
sabic

DELIVERING INNOVATION & PERFORMANCE
IN HEALTHCARE APPLICATIONS



HEALTHCARE DEVICE AND EQUIPMENT MANUFACTURERS CAN RELY ON SABIC

SABIC's high-performance thermoplastics and specialty compounds can offer benefits ranging from design freedom to strength and durability. These materials can also help manufacturers meet regulatory mandates and reach sustainability goals.

Offering more than materials

SABIC can offer more than just materials. We are well equipped to support your product development team with expertise in materials, design, application development, prototyping, process optimization and testing. Our COLORXPRESS™ centers offer an innovative setting to explore the power of color and effects in bringing new dimensions to applications.

Contact us today to discuss how we can collaborate on your next project.



MATERIALS BACKED BY HEALTHCARE PRODUCT POLICY

SABIC is a preferred global supplier to the industry, offering hundreds of medical-grade materials for surgical devices, drug delivery, patient testing and general healthcare applications. They are backed by SABIC's Healthcare Management of Change Product Policy, which provides assurance that these materials meet global safety standards, are covered by an FDA Drug or Device Master File and are subject to formula lock and a stringent change management process.

SABIC'S HEALTHCARE PORTFOLIO

LNPT[™] SPECIALTY COMPOUNDS

HIGH PERFORMANCE
ULTEM[™] HU resin (PEI)

ENGINEERING THERMOPLASTICS
LNPT[™] ELCREST[™] CRX resin (PC Copolymer)
NORYL[™] HNA resin (m-PPE)
LEXAN[™] HP resin (PC)
CYCOLOY[™] HC resin (PC/ABS)
CYCOLAC[™] HMG resin (ABS)
XENOY[™] HX resin (PC/PBT)
XYLEX[™] HX resin (PC/PET)
VALOX[™] HX resin (PBT)
GELOY[™] resin (ASA, PC/ASA)*

OLEFINS
SABIC[®] PCG resins (PP, PE, PET)

* Not included in healthcare management of change product policy.

THERMAL & CHEMICAL RESISTANCE

PEI	PES	PPSU	LCP PPS	PTFE	PEEK PVDF
PC COPOLYMERS		PPE/PA	PPA		
	PSU				
	m-PPE	PC/PBT			PBT
		PC/PET			POM
PC					PA
PC/ABS	PC/ASA*				UHMWPE
ABS	ASA*				
			PP	HDPE	
			PET	LDPE	
AMORPHOUS			SEMICRYSTALLINE		

- Manufactured by SABIC
- Other Healthcare resins



LNPT[™] SPECIALTY COMPOUNDS IN HEALTHCARE

SABIC brings over 75 years of compounding excellence. Each of the healthcare polymer families shown above can be optimized through formulation of copolymers and blends and incorporation of advanced additives and reinforcements. Examples of enhanced properties may include structural, wear and friction, conductive, thermal management, or EMI/RFI shielding.

COPING WITH HEALTHCARE CHEMICALS

Aggressive healthcare disinfectants can degrade plastics used in equipment housings and device components. Frequent exposure to disinfectants can cause environmental stress cracking (ESC), potentially resulting in malfunctions that may interfere with patient care or lead to costly premature failure and warranty claims.

Depending on chemical resistance requirements, device manufacturers can consider a diverse range of engineering thermoplastics including specialty LNP ELCRES CRX PC copolymer technology that can provide improved chemical resistance to an even broader range of disinfectants.

By helping prevent or mitigate ESC, they can help improve device durability, potentially extend useful life and help to reduce waste for a more-sustainable footprint.



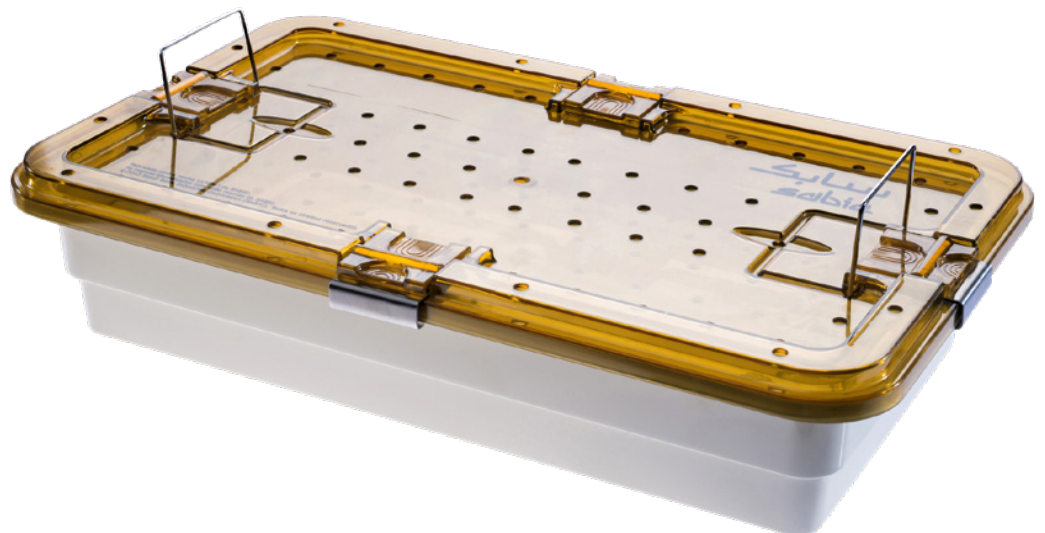
Medical devices and equipment require chemical resistance.



SAILING THROUGH STERILIZATION

Like disinfectants, sterilization can degrade the performance, appearance and integrity of plastic parts. Adding to the challenge are recent EPA regulations restricting EtO sterilization. To meet changing customer needs, plastics used in your devices should be compatible with multiple sterilization methods and withstand repeated cycles.

Many of SABIC's material solutions can provide stable performance under repeated cycles of gamma/E-beam radiation, steam autoclave and vapor hydrogen peroxide (VHP) sterilization, as well as EtO. Retention of mechanical, thermal and aesthetic properties can help to extend the useful life of the device.



STRENGTHENING STRUCTURAL PARTS

Strength, stiffness and stability are vital for medical and surgical devices subject to applied force, such as skin staplers, retractors, forceps and injection pens. Traditional stainless steel adds significant weight and can hamper design freedom.

SABIC thermoplastic materials are well suited as potential metal alternatives in structural parts. Based on the material chosen, thermoplastics could help enable complex designs with comparable strength while potentially reducing weight and processing costs.



PRECLUDING PTFE FOR WEAR AND FRICTION

For a medical device, whether it be a drug delivery pen or a surgical tool, repeatable and efficient motion is critical to performance. The friction between moving parts can impact perceived value and adoption by healthcare specialists and consumers.

SABIC's LUBRICOMP™ and LUBRILOY™ specialty compounds can help deliver the performance required. SABIC's medical-grade specialty proprietary alloys and silicone lubricated compounds can emulate the tribological performance and colorability of traditional lubricated materials while avoiding use of PTFE.



CONNECTING TO CARE

Wireless connectivity is a critical feature of devices used for remote and mobile patient monitoring, diagnosis and treatment. To help achieve positive patient outcomes, connected devices require specialized materials for accurate, safe, reliable and user-friendly operation.

SABIC offers material solutions for wireless devices that offer good dielectric properties, EMI shielding capabilities, as well as transparency and scratch-resistance for displays. SABIC technologies support advanced manufacturing methods like laser direct structuring (LDS). They can even help solve aesthetic challenges of laser welding white and light-colored materials.

Point of care devices like glucose testing monitors may require specialty material solutions.



SUPPORTING SUSTAINABILITY

SABIC's solutions can help healthcare OEMs to increase sustainability by optimizing designs to reduce weight and dimensions and increasing device lifespan with strong, chemically resistant materials that help avoid premature replacement and reduce landfilling.

Many of SABIC's healthcare portfolio grades can be produced as ISCC+ certified bio-renewable polymers which can help reduce carbon emissions without compromising on performance. These products are part of SABIC's TRUCIRCLE™ portfolio and services for circular solutions.

VISIT OUR HEALTHCARE INDUSTRY PAGE

Access our contact form here:
bit.ly/Healthcare_SABIC



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SABIC MATERIAL FINDER
Find the right Specialties material
for your application ▶



MEDICAL DEVICES

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