

RELIABLE POLYMER SUPPLIER

for Medical Device Advancement

Customizable, Compliant, Ready for Global Supply





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1. Why LG Chem



Introduction of LG Chem

LG Chem extends beyond traditional chemistry to establish itself as a global science leader, delivering new value to our customers. By merging knowledge, technology, and solutions from petrochemicals, advanced materials, and life sciences, we connect science to life for a better future.

Business Performance and Product Category



Sales in 2024

KRW 48.9trn (Approx.)



Workforce

18,750_(person)

Domestic: 13,920 Overseas: 4,830



Sites of Business

65

Domestic: 17 Overseas: 48



Petrochemicals

- · Ethylene-based Synthetic Resin
- Styrene-based Synthetic Resin
- · Benzene-based Synthetic Resin
- Propylene-based Synthetic Resin
- Superabsorbent Polymer
- Synthetic Rubber
- Caustic Soda
- Plasticizer
- Catalyst Base Oil
- Intermediate Raw Materials
- Insulation Materials
- Battery Materials
- Other: Acrylate, Alcohol, IPA, MBS, NPG, SBS



Advanced Materials

- High-performance Plastics
- Display Materials
- Battery Materials
- Semiconductor Materials
- Automobiles Materials



Life Science

- Ethical Drug
- Medical Devices
- · Active Pharmaceutical Ingredients

Production Capacity *Alphabetical order (ABCD~)

Unit: KTA

ABS/SAN 2,380 (Acrylonitrile Butadiene Styrene / Styrene Acrylonitrile)				
Aerogel	200,000m ²			
Alcohol	145			
BD (Butadiene)	510			
Binder	23			
BPA (Bisphenol A)	505			
BZ (Benzene)	900			
Chemical Recycle	e 20			
CNT (Carbon Nanotub	pe) 3			
EPS (Expandable Polys	styrene) 90			

Ethylene	3,350
HDPE (High-Density Polyethylene)	550
IPA (Isopropyl Alcohol)	265
LDPE/EVA (Low-Density Polyethylene / Ethylene-Vinyl Acetate)	460
LLDPE (Linear Low-Density Polyethylene)	600
NAOH (Sodium Hydroxide)	1,000
NBL (Nitrile Butadiene Latex)	555
NPG (Neopentyl Glycol)	175
Oxo-Alcohol (Oxos-Alcohol)	170

PC (Polycarbonate)	170
Plasticizer	175
POE (Polyolefin Elastomer)	380
PP (Polypropylene)	380
Propylene	1,980
PS (Polystyrene)	40
PVC (Polyvinyl Chloride)	1,100
SAP (Super Absorbent Polymer)	500
Specialty Resin	310
Synthetic Rubber	365
*^ -	sf 10, 2025

*As of 1Q, 2025



Why Choose LG Chem's Medical Device Materials?

LG Chem is a leading materials science company committed to fulfilling customer needs and providing comprehensive solutions. We offer a broad portfolio of high-performance materials, specifically designed for the medical device industry. Our materials are engineered to meet the stringent demands of medical applications – ensuring reliability, safety, and environmental responsibility.

Key Advantages of LG Chem's Medical Device Materials



Supply Stability

- Global Network
- Dedicated Spec Lock-in



Total Solution Provider

- Global Certification
- Global Technical Support
- Diverse Portfolio for Customization
- Partnering for Innovation



Sustainability Transition

- Reliability
- Pre-Verification
- Variety
- Certification



Versatile Color Formulation

- Global Color Order System
- Trend Research & Insight
- Color Forecasting & Proposal

Product Portfolio

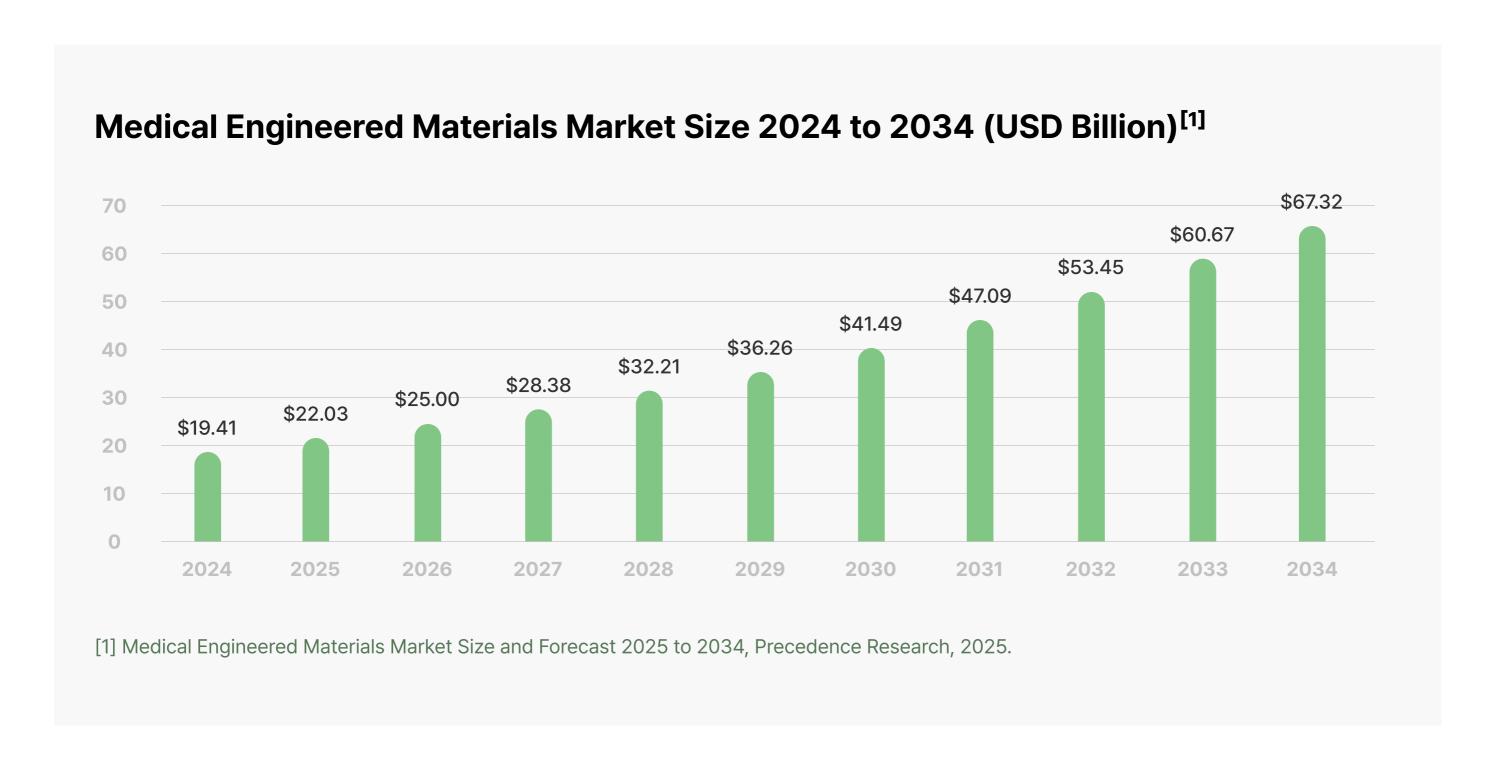
Application	Medical Equipment, Connectors	Autoinjector Housing, Connectors	Connectors, Luer Locks, LED Masks, Renal Device (Dialyzer Housing)
Product	General ABS (p.6)	Transparent ABS (p.6)	PC (p.7)
Grade	HF380-M	TR558A-L	PC2001-10 (EtO/Steam), PC2001-20 (EtO/Steam), PC2080-20 (Gamma sterile)
Feature	Offering durability and chemical resistance	Providing clarity and strength	Offering excellent transparency, heat resistance, and gamma sterilization compatibility
	Dharmagautical Pattle		
Application	Pharmaceutical Bottle, Eye Drop Fluid Packaging Tablet/VMS Packaging (I	- .	Blood transfusion bag/collection tube, Medical tube(Silicone rubber alternative)
Application Product	Eye Drop Fluid Packagino	- .	
	Eye Drop Fluid Packaging Tablet/VMS Packaging (I	Bottle, Cap)	Medical tube(Silicone rubber alternative)



Importance in Modern Healthcare Solutions

In today's rapidly evolving healthcare landscape, the role of medical device materials has become increasingly critical in enhancing patient care, safety, and operational efficiency. As medical devices become more advanced and specialized, the materials used in their construction must meet stringent requirements for biocompatibility, durability, and regulatory compliance.

According to recent industry reports, the global medical device materials market is projected to reach \$67.32 billion by 2034, growing at a CAGR of 13.24% from 2025 to 2034. This growth is driven by the increasing demand for minimally invasive procedures, personalized medicine, and the integration of smart technologies in medical devices^[1].



Meeting Regulations Without Compromising Performance

As regulations become more stringent, medical device manufacturers are now expected to deliver solutions that not only **meet these standards** but also **ensure outstanding performance**, especially in high-stress environments such as surgical settings.





As a leading materials science company, **LG Chem** has dedicated significant resources to developing high-performance materials that meet these demanding requirements.

We understand that the modern healthcare sector is no longer focused on one-size-fits-all solutions but rather requires materials tailored to specific applications and patient requirements.

As a Trusted Partner and Total Solution Provider

Our extensive portfolio of medical device materials includes **ABS**, **PC**, **PO**, and **PVC**, each engineered to provide optimal performance in various applications such as dental chairs, insulin pens, and Pharmaceutical Bottles.

ABS, PC, PO, and PVC combine exceptional transparency, heat resistance, and chemical resilience, ideal for demanding healthcare environments. ABS and PC excel in strength, cost efficiency, and safety; PO enhances flexibility and chemical resilience, while PVC provides durability. Together, they ensure optical clarity, thermal stability, and reliable chemical protection for medical applications.

With advanced material science expertise and a robust global network, LG Chem is well-positioned to support customers navigating healthcare industry complexities. We are a trusted partner offering stability, innovation, and customized, comprehensive total solutions tailored to medical device manufacturers' unique demands.









- Balanced mechanical property, Excellent processability, High fluidity
- Biocompatibility (international standards met)
- High clarity, Balanced mechanical property, Excellent processability
- Biocompatibility (international standards met)

PC

- Outstanding clarity, Robust strength, High heat/impact resistance
- Strong biocompatibility, Excellent dimensional stability

LDPE

 High transparency, Flexibility, Strong chemical resistance

 Lightweight, Easily deformable packaging HDPE

PO

- ·High strength, Durability
- Rigidity, Protection, Secure packaging

PP

- Strength, Heat resistance, Processability
- Diverse packaging, Durability



- Superior chemical resistance, Durability
- Rigid, Cost-efficient and versatile



2. Medical-Grade Resin Portfolio



→ ABS (Acrylonitrile Butadiene Styrene)

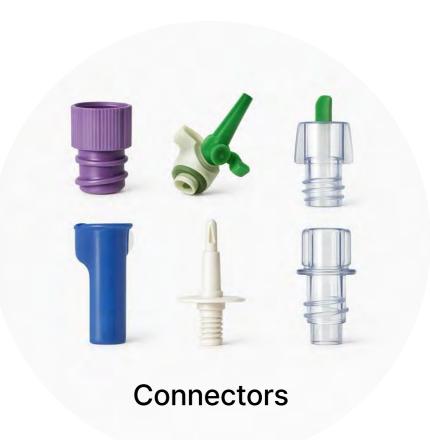
ABS is a highly-functional plastic known for its excellent processability, mechanical properties, and **chemical resistance** – making it ideal for medical device and components. LG Chem is the global No.1 in ABS market share, trusted by top medical brands.

Specification

Grade	General ABS HF380-M	Transparent ABS TR558A-L			
Production	- Production line can be assigned and operated				
Regulatory and Quality Certification	- Certified to ISO 10993-4, 5 (Certificates available) - USP Class VI certified - FDA DMF listed				
Environmental Regulations and Global Standards	- RoHS, SVHC satisfied - Animal-free statement available				
Documentation	- TDS can be provided - Supporting data such as chemical resistance test reports available				
Management	- 12-month Notification of Change (NOC) program available				
Supply Chain Stability and Global Response	- No restrictions within capacity - Manufactured in Yeosu, Korea - Lead time to US/Europe 8–10 weeks - Warehouse in operation				
Technical Support and Collaboration	- Injection molding guide available (including processing guide in TDS) - New project collaboration is possible (RFQ~)				









PC (Polycarbonate)

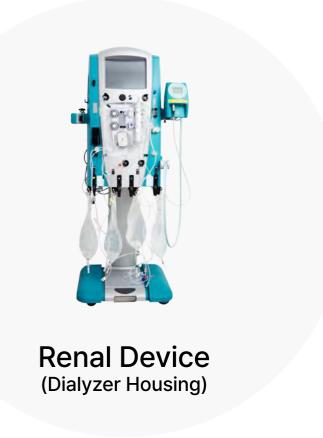
PC is a high-performance engineering plastic which offers great **transparency**. It is **resistant to impact and heat**, and is stronger and lighter than general plastics.

Specification

Grade	PC2001-10 (EtO/Steam) P	C2001-20 (EtO/Steam)	PC2080-20 (Gamma sterile)		
Production	- Production line can be assigned and operated				
Regulatory and Quality Certification	- Certified to ISO 10993-3, 4, 5, 10, 11 (Certificates available)		- Certified to ISO 10993-3, 4, 5, 6, 10, 11 (Certificates available)		
Environmental Regulations and Global Standards	- RoHS, SVHC satisfied - Animal-free statement available				
Documentation	- TDS can be provided - Supporting data such as chemical resistance test reports available				
Management	- 12-month Notification of Change (NOC) program available				
Supply Chain Stability and Global Response	- No restrictions within capacity - Manufactured in Yeosu, Korea - Lead time to US/Europe 8–10 weeks - Warehouse in operation				
Technical Support and Collaboration	- Injection molding guide available - New project collaboration is possible (RFQ~)				









PO (Polyolefin)

LDPE (Low-Density Polyethylene) is highly **transparent**, **flexible**, and **chemically resistant**, making it ideal for lightweight, deformable packaging. **HDPE (High-Density Polyethylene)** features **high strength** and **durability**, providing robust and secure packaging solutions where rigidity and protection are required. **PP (Polypropylene)** offers **excellent strength** and **heat resistance** with **good processability**, making it suitable for diverse packaging and durable products.

Specification

Grade	LDPE BB120	LDPE BB150	HDPE BE0400	HDPE ME8000	PP H1500	PP H5300
Production	- Production line can be assigned and operated					
Regulatory and Quality Certification						
Environmental Regulations and Global Standards	- Anin	- RoHS, SVHC satisfied - Animal-free statement available		- RoHS, SVHC, California Proposition 65 satisfied - Animal-free statement available		
Documentation	- TDS can be provided - Supporting data such as certifications available		- TDS can be provided - Supporting data such as certifications available		vailable	
Management	•	- Rigorous Quality - CoA specifications available Control at Every Stage - Compliance with 4M change procedures			ures	
Supply Chain Stability and Global Response	- No restriction with in capacity - Manufactured in Korea - Lead time to Asia 1~6 weeks					
Technical Support and Collaboration	- BFS processing guide available		- Injection mol	ing (BE0400) ding (ME8000) available	1	tion molding e available

- * BFS: Blow-Fill-Seal / CoA: Certificate of Analysis / SDS: Safety Data Sheet
- * 4M: Man / Materials / Machine / Method
- * California Proposition 65: Safe Drinking Water and Toxic Enforcement Act of 1986









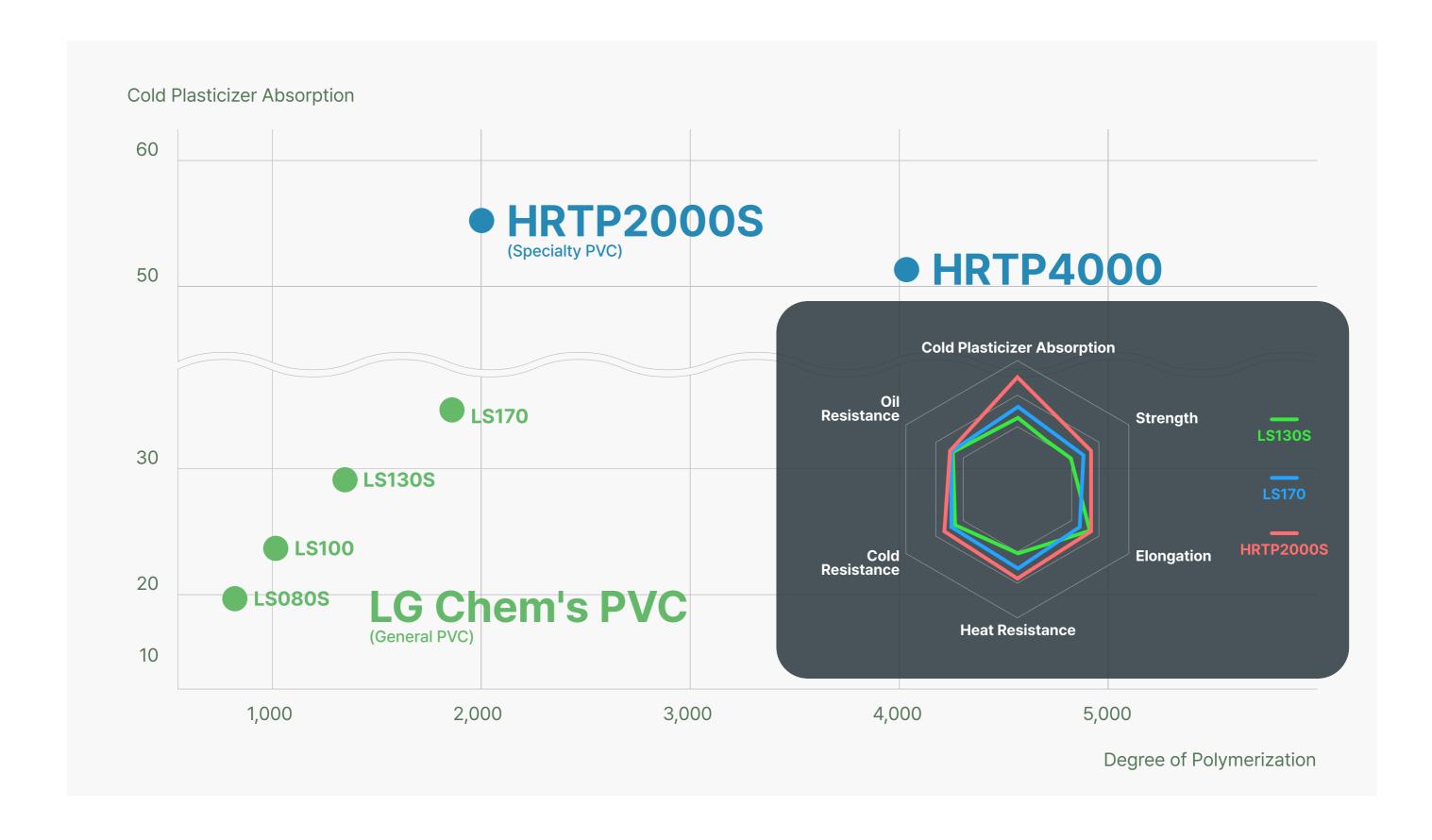
PVC (Polyvinyl Chloride)

PVC, a synthetic resin accounting for 57% chlorine from salt and one of the five major general-purpose resins, is widely used in both rigid products (e.g., pipes, window frames) and flexible items (e.g., flooring, electrical wiring), offering **broad product applicability** due to its **excellent processability** and cost-**effectiveness**, while its drawbacks are mitigated through **various additives**.

Specification

*HRTP (Heat-Resistant and Recyclable Thermal Plastic)

Grade	LS130S	LS170	HRTP4000	HRTP2000S	
Production	- Production line can be assigned and operated				
Environmental Regulations and Global Standards		- RoH	IS, SVHC satisfied		







3. Key Functionalities & Strengths



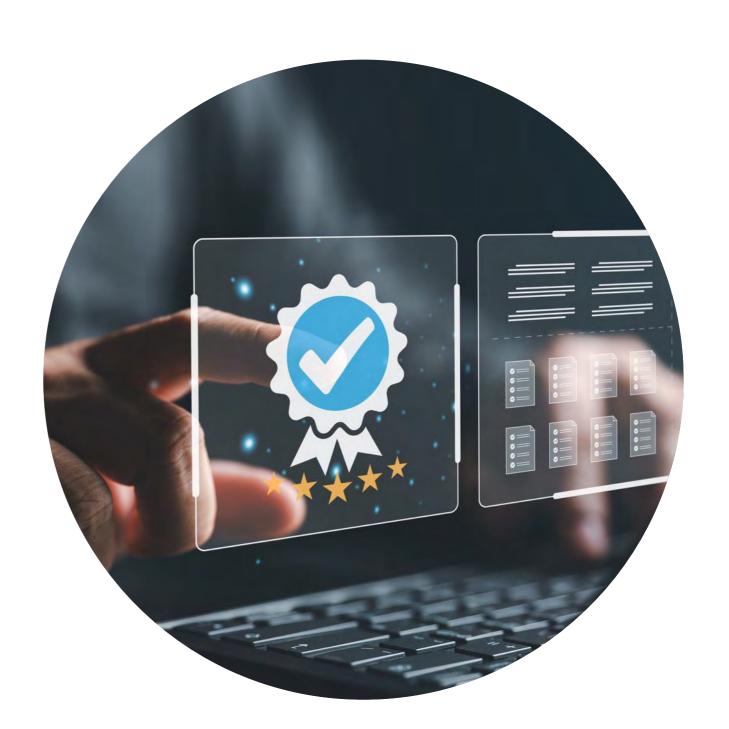
Supply Stability

LG Chem has a robust **global network** with various functions, including production, R&D, sales, and marketing, operating worldwide. To maintain the specifications and quality that meet customer needs, LG Chem manufactures products in dedicated lines based on a Notification of Change (NOC) for at least 12 months. Through this, LG Chem promises a reliable and stable supply under any circumstances.

LG Chem's Commitment to Supply Stability



Global Network



Dedicated Spec Lock-in

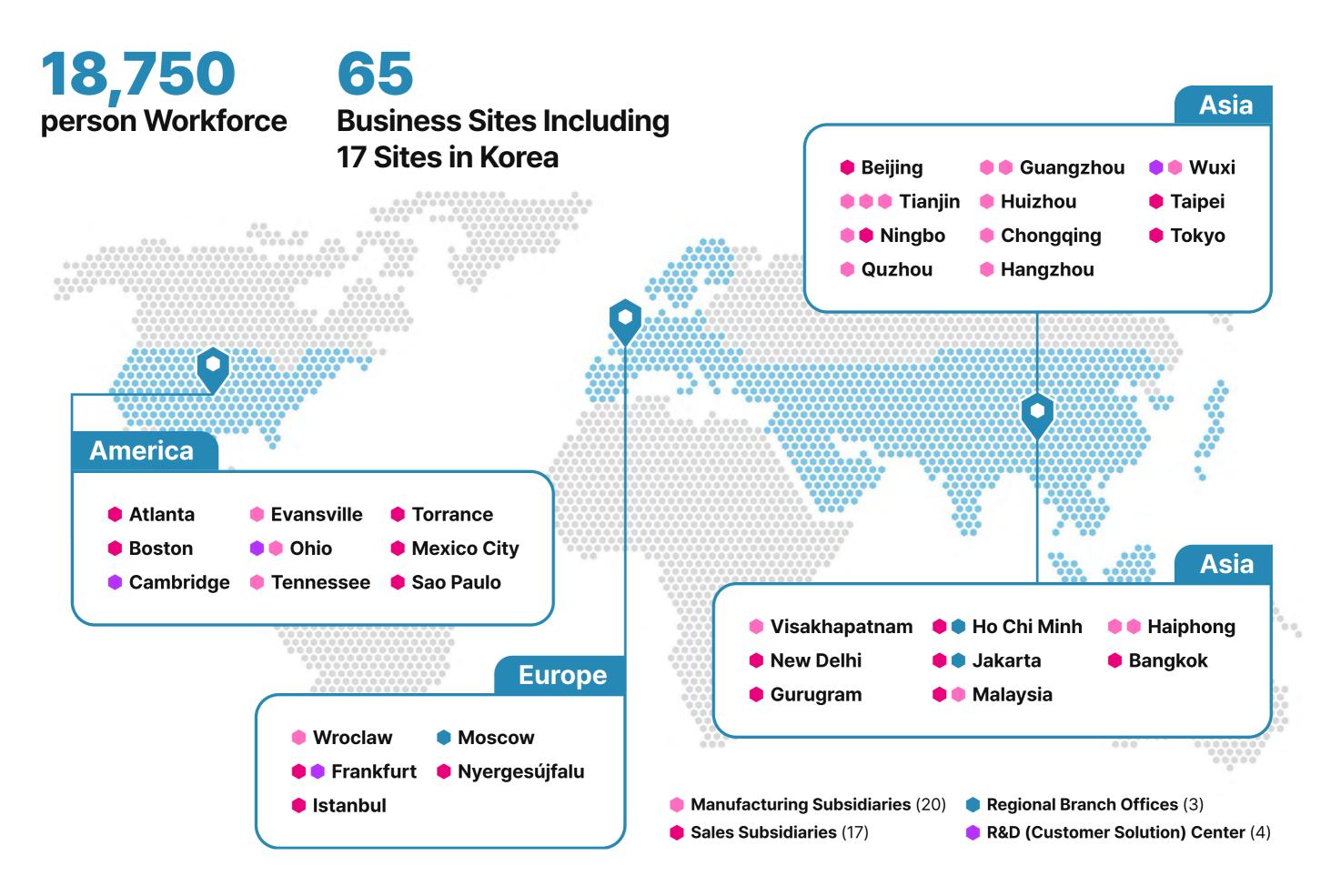
Global Network

When the world was engulfed in the tumult of a pandemic, many of our competitors faced supply crises due to the shutdown of medical material factories. They were forced to urgently seek alternatives, and the process of evaluation and certification posed significant physical challenges. There was also an anticipated risk of production delays and reduced profitability for our customers.

However, LG Chem was different. Thanks to our solid global network and rapid response capabilities, we were able to transform the crisis into an opportunity.

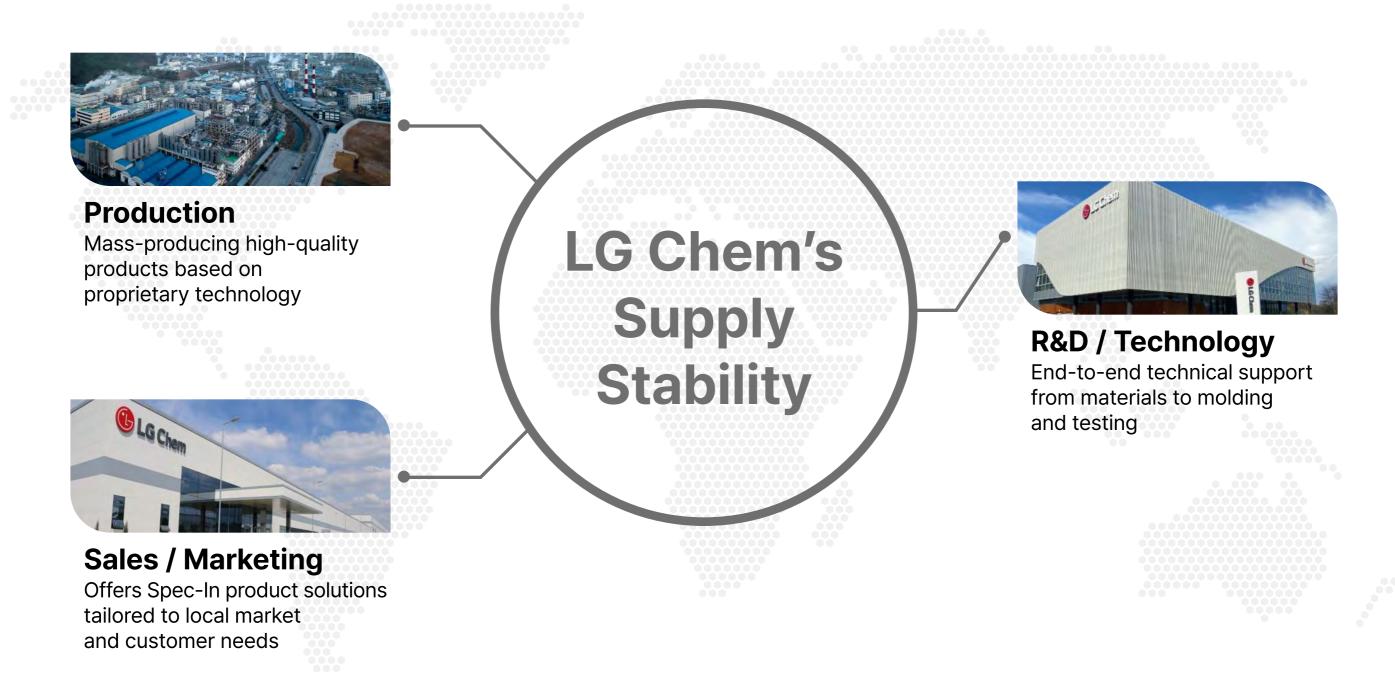


Global Regional Network



During the COVID-19 pandemic, LG Chem overcame the crisis by maintaining supply stability through our systematically established **regional networks worldwide**. LG Chem's ability to provide reliable supply under any circumstances is renowned in the industry.

Global Functional Network



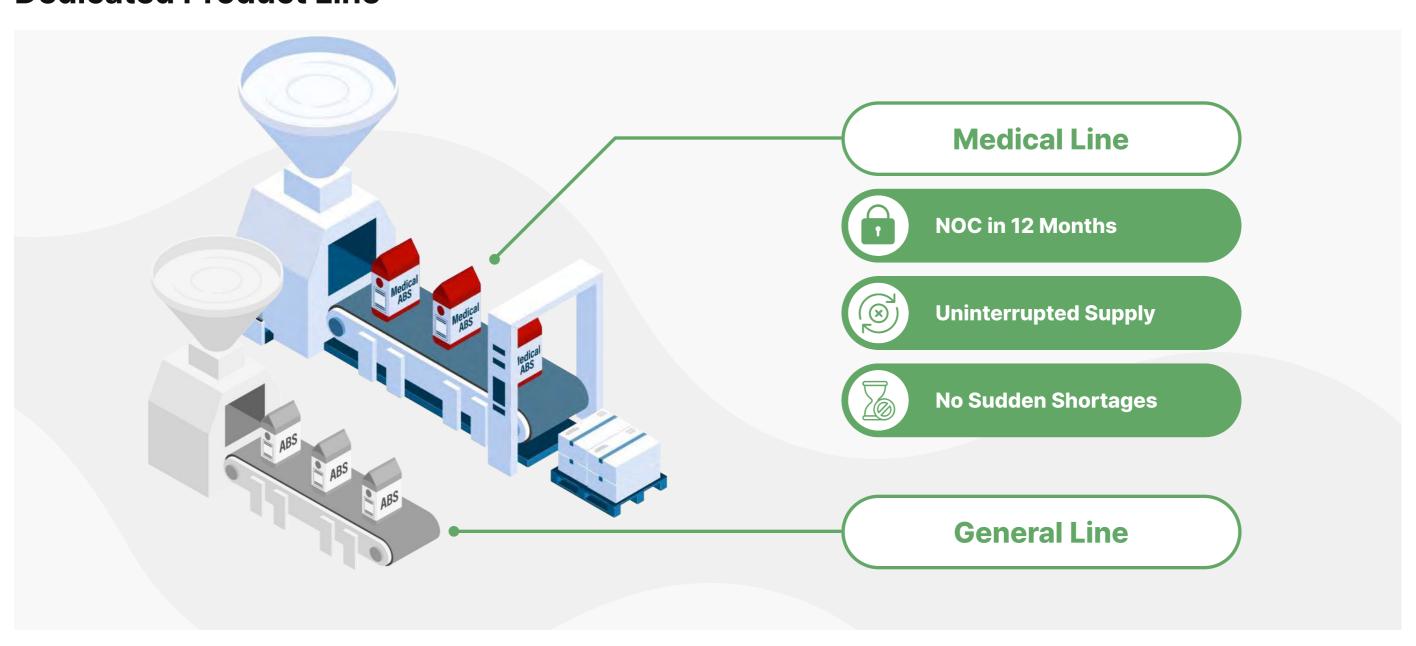


Dedicated Spec Lock-in

When customers select materials for medical devices, what is most critical to them? It is the **accurate specifications and consistent quality**. In fact, 73% of customers consider these factors as their top priorities, according to a survey.^[1]

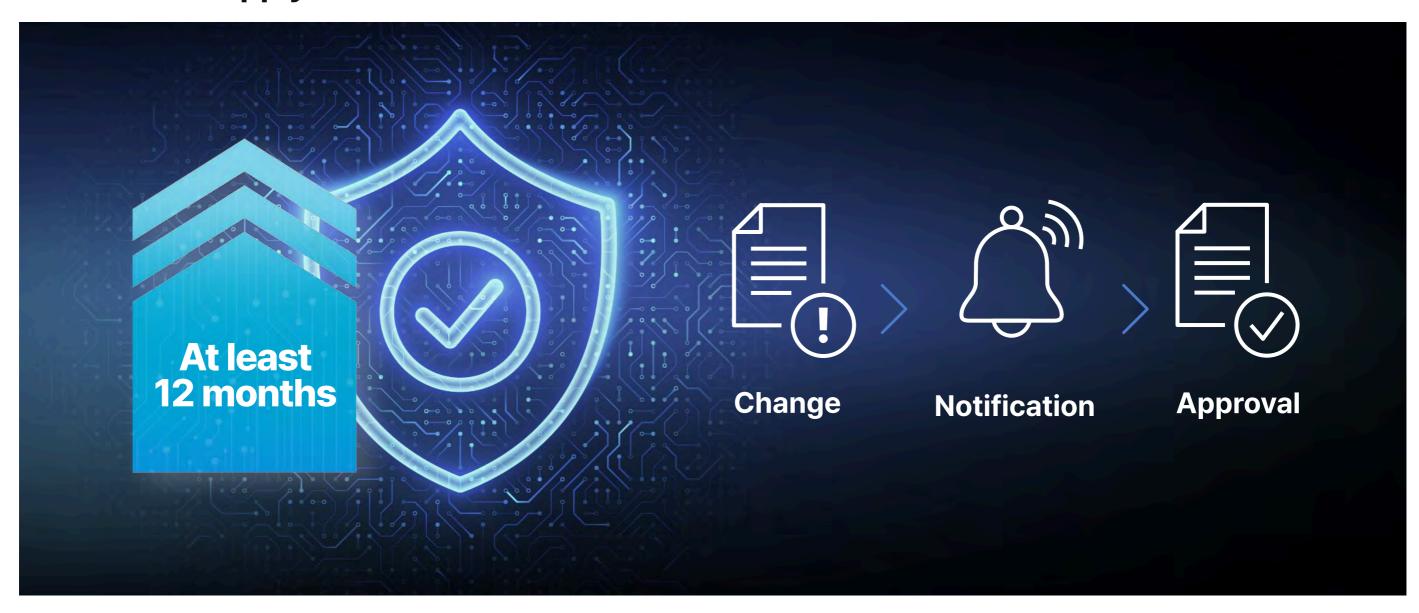
To meet these customer demands, LG Chem supplies products with **precise specifications and quality** from our **dedicated production lines**.

Dedicated Product Line



Specifically, LG Chem operates dedicated production lines **specialized for medical device materials**, ensuring a stable supply under stringent safety and quality standards.

Consistent Supply



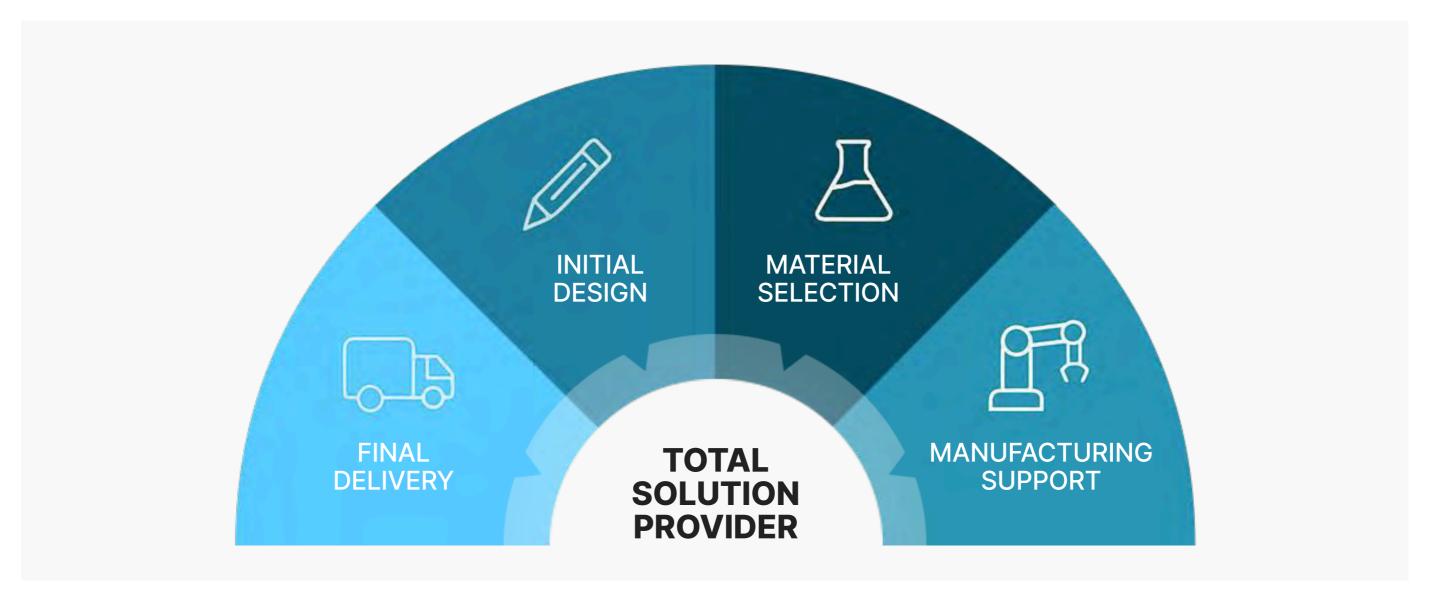
Additionally, LG Chem adheres to the **Notification of Change (NOC)** guidelines and guarantees continuous supply for **at least 12 months** based on dedicated specifications tailored to meet customer requirements.



Total Solution Provider



At LG Chem, we understand that medical device manufacturers require not just high-quality materials, but also a seamless support system that ensures compliance, flexibility, and innovation throughout the product lifecycle. As a **total solution provider**, we offer a holistic approach to address all your needs, from material selection to finished product delivery.



Global Certification

Our commitment to excellence is reflected in our ability to meet stringent global standards, including **ISO 10993**, **USP Class VI**, and **FDA**. These certifications ensure that our materials not only meet but exceed the safety and quality requirements of the medical device industry.



Evaluates biocompatibility of medical materials, including cytotoxicity, sensitization, and irritation.



Confirms material safety through rigorous biological testing, as defined by the U.S. Pharmacopeia.



Certifies that the material or device meets safety and performance requirements for market approval.



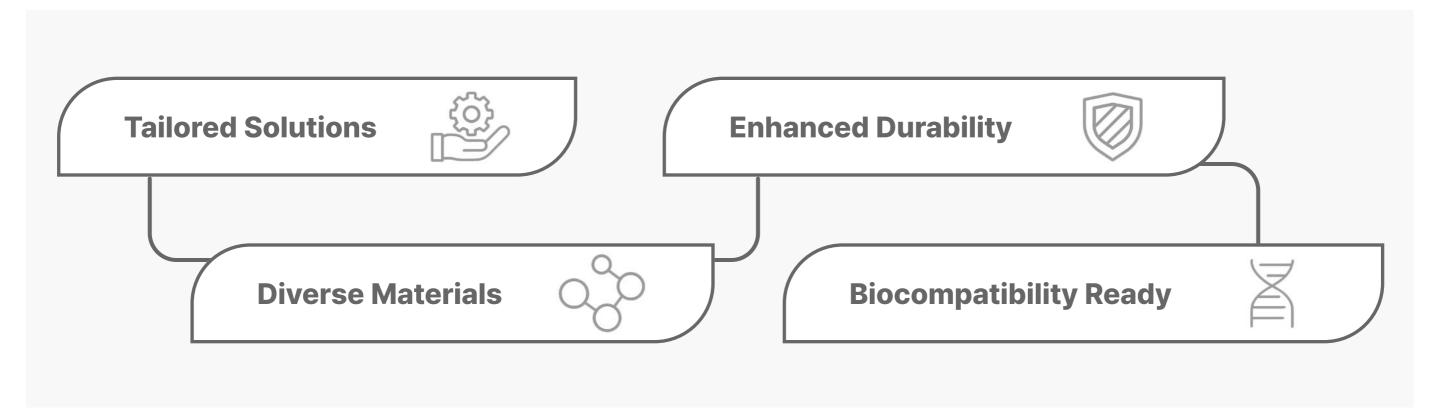
Global Technical Support



Our **global customer solution center** is at the heart of our technical support system. Beyond simply providing materials, we offer comprehensive assistance, **including injection molding and processing guidance**, **sample testing**, and **support throughout the entire manufacturing process**. Our team of experts is dedicated to helping you bring innovative medical devices to market efficiently.

Diverse Portfolio for Customization

We offer a wide range of products that can be **tailored to meet your specific requirements**. Whether you need enhanced flexibility, durability, or biocompatibility, we have the solutions to support your innovation.

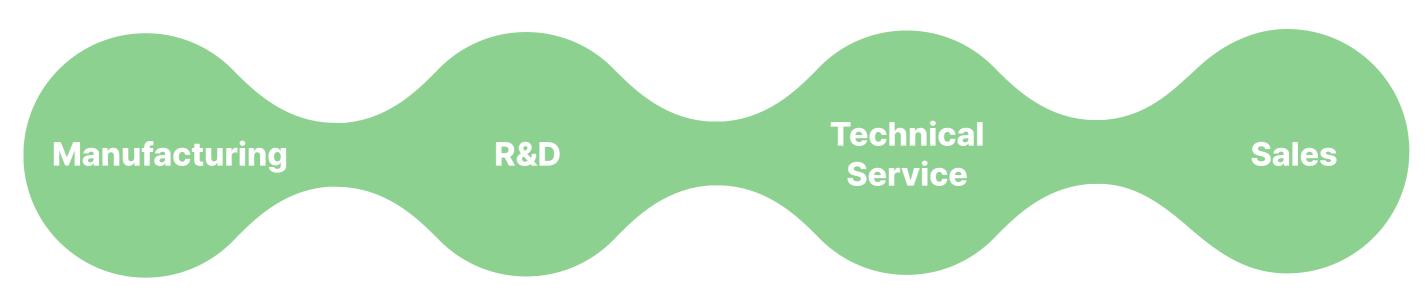


By partnering with LG Chem, you gain a trusted ally that not only supplies high-quality material but also provides the technical expertise and flexibility needed to bring your medical devices to life. Let us help you shape the future of healthcare with our comprehensive solutions.

Partnering for Innovation

LG Chem is a reliable partner that provides an **all-in-one solution** to assist you throughout the entire process of medical device manufacturing, backed by expertise.

Providing an All-in-One Solution Across All Areas



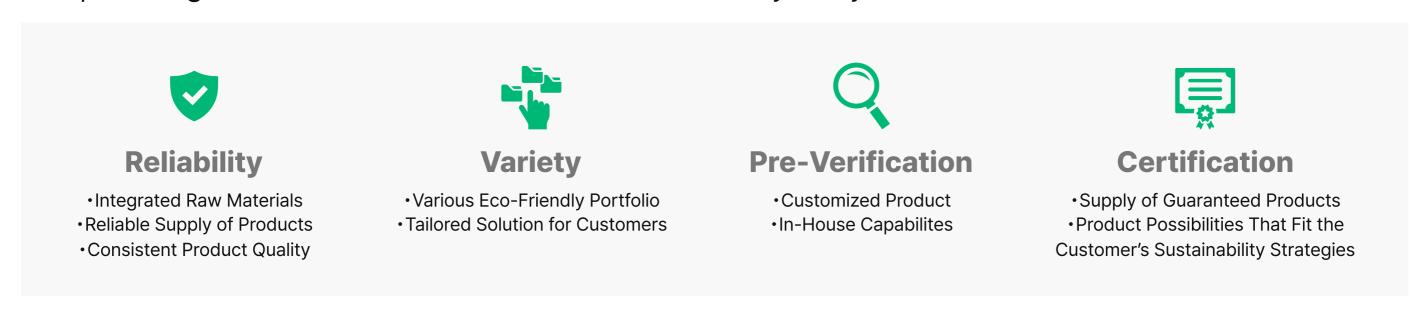


Sustainability Transition

For a Sustainable Tomorrow, with LG Chem Medical Device Materials

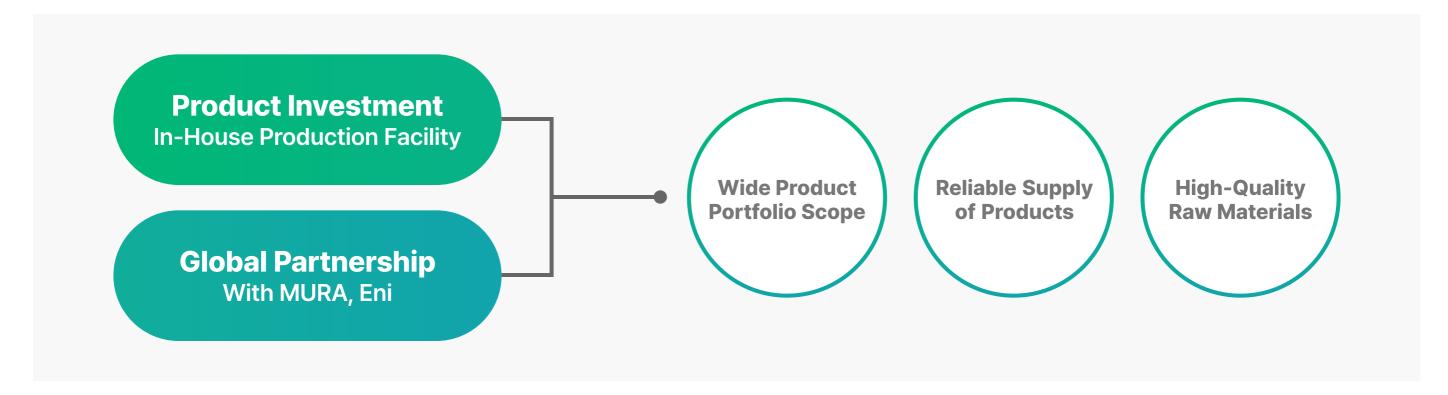
LG Chem's medical device materials are not just products; they are a reliable partner supporting customers in their **sustainable transition**. This journey is akin to preparing in advance for a rapidly evolving future.

LG Chem has **sustainable offsets for nearly all virgin products**, enabling customers to expedite their journey towards achieving eco-friendly goals. This is similar to having pre-prepared traffic signals on the road, allowing for a smooth transition without unnecessary delays.



Reliability: Trust Through Consistent Supply

LG Chem consistently supplies high-quality, diverse eco-friendly material products through **product investment** and **global partnerships**, earning trust.



Pre-Verification: Comprehensive Solutions Through Pre-Testing

LG Chem supports comprehensive risk assessments for all products through pre-customer testing at our **Global Customer Solution Centers** located worldwide. This enables us to provide customers with **holistic and tailored solutions**.

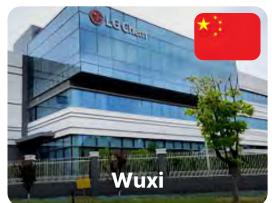
Global Customer Solution Center









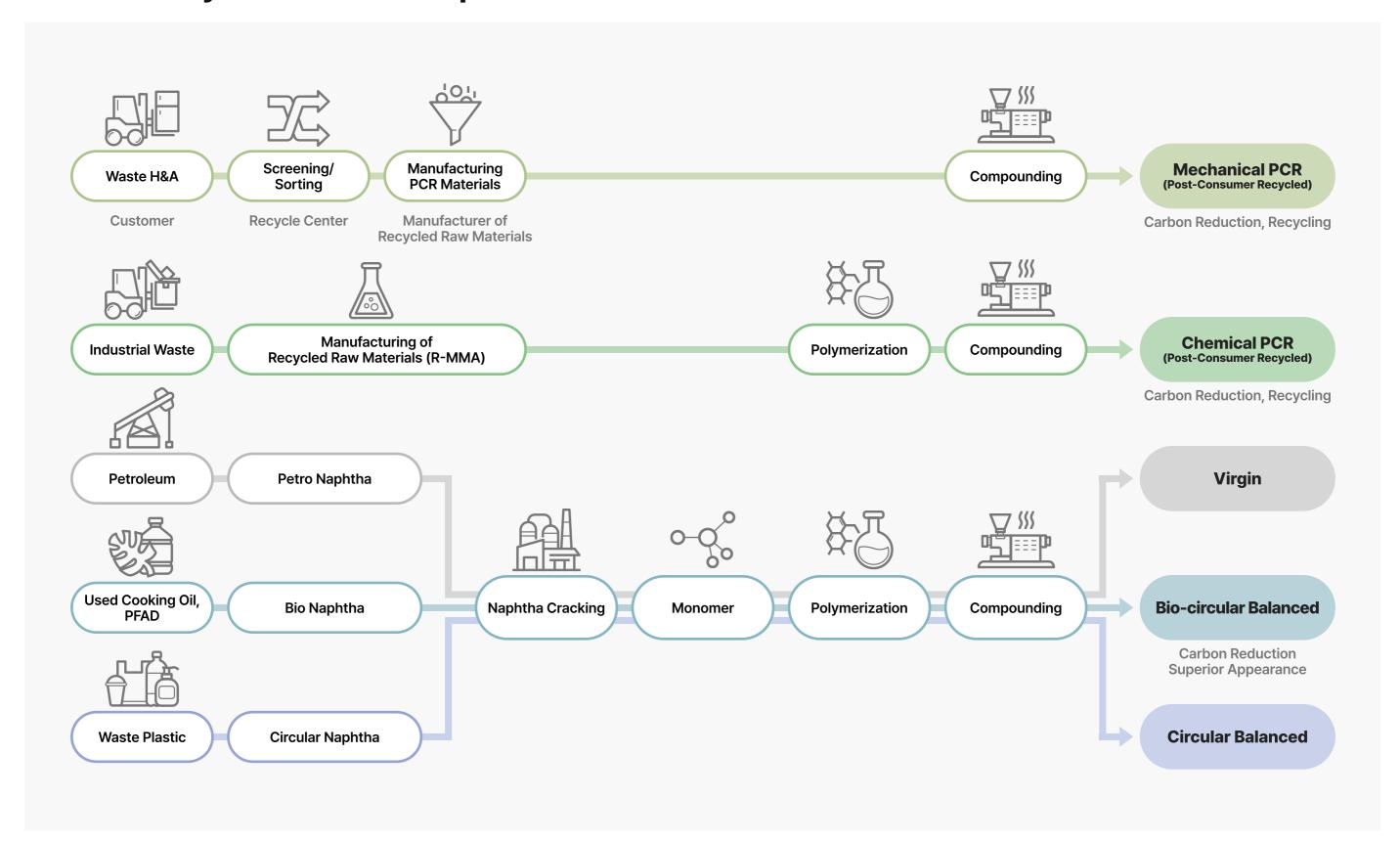




Variety: Diverse Portfolio of Eco-Friendly Materials

LG Chem offers a diverse portfolio of eco-friendly materials catering to customer needs, ranging from Recycled to Bio options.

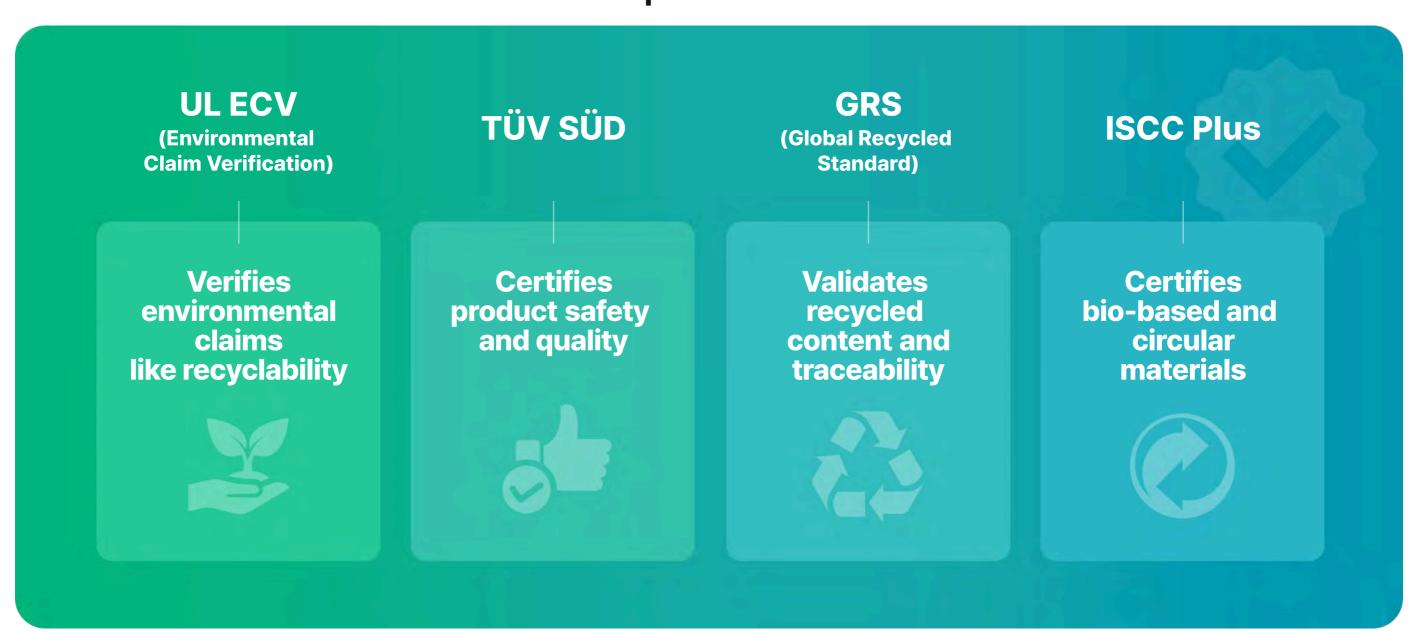
Eco-Friendly Product Line-Up



Certification: Trusted Partner with Verified Eco-Friendly Credentials

LG Chem's products contribute to customers achieving their environmental goals by acquiring **global eco-friendly certifications**.

LG Chem's Global Eco-Certification Footprint





Versatile Color Formulation

LG Chem offers a **comprehensive color solution** for medical device materials, combining a **global color order system** for quick and reliable supply, **trend research and insights**, and **color forecasting**. Our expertise ensures that your products not only meet but exceed color expectations, blending innovation with precision.

Color Design Capabilities



Global Color Order System

LG Chem provides a broad range of colors for stable supply, with customization options available through LG Chem On.



Trend Research & Insight

LG Chem provides the latest trend insights across society, culture, lifestyle, design, and color through design newsletters.



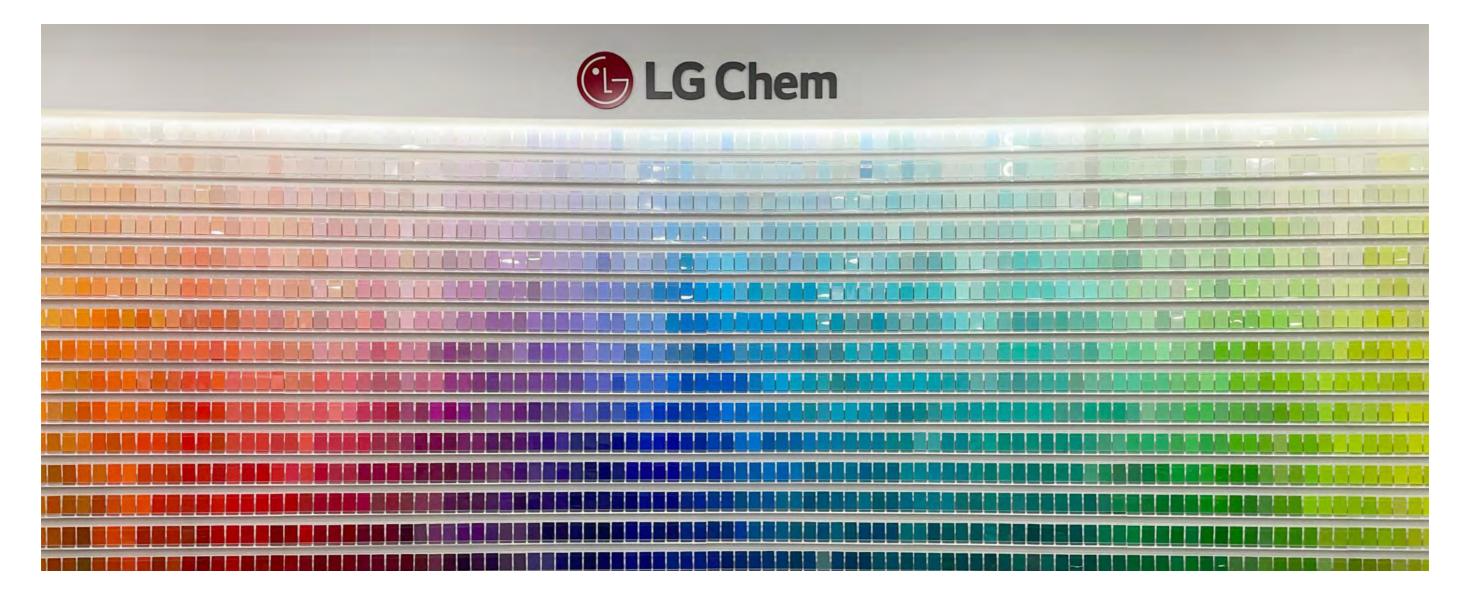
Color Forecasting & Proposal

LG Chem analyzes color trends to propose tailored materials and shades, anticipating industry-specific changes.

In particular, due to the increasing demand for **diverse colors for different components** within a single Medical Device product, driven by **high quality expectations**, the ability to supply high-quality materials in various colors with consistent specifications within a short timeframe has become crucial.

LG Chem has independently established a **Color Design Center**, leveraging insights from in-depth industry color trend research to predict and propose **customized colors** for customers. LG Chem possesses the capability to produce and supply these colors **reliably** and **efficiently**.

Diverse Color Palettes





4. Application Case Studies & Benchmarking



ABS on Connector

Customer:

"We require materials that are highly processable, chemically resistant, and transparent for our applications."

Solutions and Effects:

LG Chem delivered high-performance materials that met these needs, enabling **efficient production**, ensuring **durability**, and achieving **superior clarity**, ultimately boosting customer satisfaction.

PC on Connector

Customer:

"We need a product that balances outstanding physical, mechanical, and certified attributes for our final users."

Solutions and Effects:

LG Chem delivered a product that perfectly met customer's **quality** and **certification needs**, resulting in superior performance, high customer satisfaction, and end-user trust.





LDPE on Pharmaceutical Bottle

Customer:

"We need a material that offers exceptional clarity for our pharmaceutical bottles."

Solutions and Effects:

LG Chem's LDPE, with **high clarity**, met the customer's standards. Our **semi-clean room system** ensured **quality control** and **minimized contamination**, enhancing customer satisfaction.





Beyond Materials: LG Chem as Your Growth Catalyst

1. Supply Stability

LG Chem ensures global product supply consistency with dedicated production lines for over a year, adhering to NOC regulations.

2. Total Solution Provider

LG Chem offers end-to-end solutions for customers, supported by global certifications, technical support, customization, and partnerships.

3. Sustainability Transition

LG Chem helps customers transition smoothly to eco-friendly practices with reliable, certified solutions.

4. Versatile Color Formulation

LG Chem guarantees swift, reliable color supply for medical devices through a global order system, with trend research and forecasting.

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01

Mitigate Risks of Material Shortage

with LG Chem's Global Supply Chain

03

LG Chem's On-Site Support

: Comprehensive Device Mass Production Solutions

05

Navigating Regulatory Trends

: LG Chem's Expertise in Navigating Medical Compliance



02

LG Chem's Exclusive Medical Line Materials

: Quality Assurance Without Lot-Specific Risks

04

Seamlessly Transition to Eco-Friendly Products

with LG Chem's Sustainable Materials

06

LG Chem's Medical Material Success Stories

: Your Reference Guide

E-mail marketing@lgchem.com

Website lgchem.com / lgchemon.com

Address LG Twin Towers, 128, Yeoui-daero, Yeongdeungpo-gu, Seoul, 07336, Korea





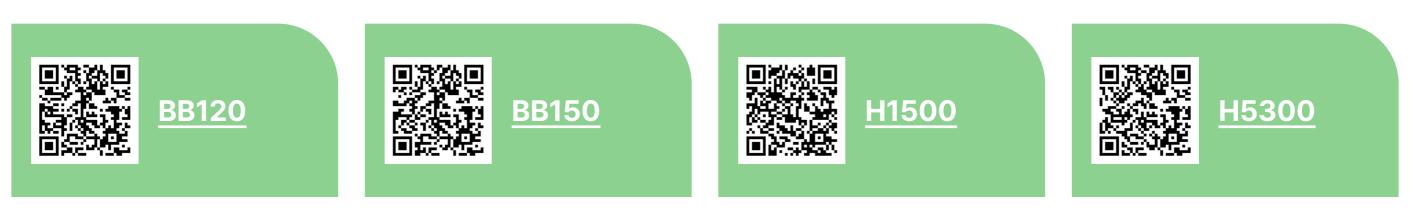
ABS (Acrylonitrile Butadiene Styrene)



PC (Polycarbonate)



PO (Polyolefin)



PVC (Polyvinyl Chloride)

