

LCD Display Materials Market Forecasts to 2034 – Global Analysis By Material Type (Liquid Crystals, Polarizers, Color Filters, Backlight Units (BLU), Substrates, Alignment Layers, Sealants & Spacers and Conductive Materials), Technology, Application and By Geography

<https://marketpublishers.com/r/LDCE1CC32B33EN.html>

Date: March 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: LDCE1CC32B33EN

Abstracts

According to Statistics MRC, the Global LCD Display Materials Market is accounted for \$10.04 billion in 2026 and is expected to reach \$13.33 billion by 2034 growing at a CAGR of 3.6% during the forecast period. LCD display materials include engineered liquid crystal mixtures, polarizing films, glass panels, color filter arrays, alignment coatings, and backlighting elements that collectively create visual output in liquid crystal displays. The liquid crystals adjust light passage under electrical signals, while polarizers refine contrast and clarity. Transparent conductive layers such as indium tin oxide enable accurate pixel activation. These materials enhance luminance, energy savings, color fidelity, and reliability in devices like TVs, laptops, mobile phones, vehicle displays, and industrial screens. Ongoing advancements emphasize slimmer substrates, sustainable formulations, faster response times, and improved optical layers to deliver sharper images, lower power usage, and longer operational life.

According to Omdia (2026), large-area display unit shipments (including LCD and OLED) reached 910.5 million units in 2025, growing 2.9% year-over-year. Within this, LCD shipments alone accounted for 876.8 million units, marking a 2.6% YoY increase despite global economic uncertainty and tariff pressures.

Market Dynamics:

Driver:**Rising demand for consumer electronics**

Growing adoption of electronic devices worldwide significantly propels the LCD display materials market. Strong sales of smart phones, TVs, notebooks, tablets, and smart wearable's increase demand for essential components like liquid crystal compounds, polarizing films, specialty glass, and transparent electrodes. Factors such as urban growth, rising purchasing power, and digitally connected lifestyles encourage frequent device upgrades. Advancements including ultra-high-definition resolution and power-efficient screens further intensify material requirements. As brands strive to deliver thinner profiles, improved brightness, and enhanced durability, the consumption of sophisticated LCD materials expands steadily in both mature and developing markets.

Restraint:**Intense competition from OLED and emerging display technologies**

Growing preference for OLED and next-generation display solutions significantly restrains the LCD display materials market. OLED technology delivers enhanced image quality, improved contrast, slimmer construction, and design flexibility, making it attractive for high-end electronics. As manufacturing efficiencies improve and prices decline, OLED adoption expands across smart phones, televisions, and smart devices. Moreover, advancements in MicroLED and MiniLED add further competitive pressure. This transition limits the expansion potential of traditional LCD materials and forces suppliers to focus on cost optimization and technical upgrades to sustain relevance within the rapidly changing global display industry.

Opportunity:**Growth of smart infrastructure and digital signage**

Rising investments in intelligent urban systems and digital communication platforms open new avenues for the LCD display materials market. Public display boards, transit information screens, advertising panels, and self-service kiosks depend on robust LCD technology. Urban modernization projects prioritize dynamic content sharing and interactive services, expanding the use of display installations. Such environments demand materials offering enhanced brightness, durability, and environmental resistance. As cities and commercial entities continue adopting smart infrastructure

solutions, demand for advanced LCD materials is expected to increase consistently across global markets.

Threat:

Rapid shift toward next-generation display technologies

The growing preference for advanced display formats like OLED and MicroLED represents a serious threat to the LCD display materials industry. These newer technologies provide enhanced image quality, slimmer designs, flexibility, and better power efficiency, appealing strongly to high-end electronics manufacturers. As fabrication processes mature and prices become more competitive, their market penetration increases. This evolution could gradually diminish dependence on traditional LCD panels and related components. Without continuous technological upgrades, LCD material producers risk experiencing shrinking demand and intensified competition within the global display sector.

Covid-19 Impact:

The outbreak of COVID-19 influenced the LCD display materials market in both negative and positive ways. Early restrictions caused factory shutdowns, interruptions in raw material supply, and transportation delays, reducing production capacity. Nevertheless, the shift toward remote working, virtual learning, and in-home entertainment increased sales of notebooks, televisions, and computer monitors. This surge elevated demand for essential LCD components such as liquid crystal compounds and optical films. Despite ongoing issues like component shortages and logistical bottlenecks, the pandemic highlighted the critical role of display technologies, supporting recovery and sustained relevance across multiple sectors globally.

The liquid crystals segment is expected to be the largest during the forecast period

The liquid crystals segment is expected to account for the largest market share during the forecast period due to their central role in display operation. They regulate light transmission in response to electrical signals, forming the basis of image generation in all LCD panels. Strong demand across consumer electronics, automotive interfaces, and professional display systems drives sustained usage. Improvements in display clarity, response time, and power efficiency require refined liquid crystal compounds, reinforcing their importance. Because they are indispensable to panel functionality and continuously required in manufacturing, liquid crystals maintain the largest share within

the overall LCD materials landscape.

The quantum dot LCD segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the quantum dot LCD segment is predicted to witness the highest growth rate, driven by its ability to deliver vibrant colors, higher luminance, and greater efficiency than traditional LCD formats. The use of quantum dot films enhances color reproduction while retaining the cost advantages of LCD manufacturing. Rising consumer preference for premium TVs, advanced gaming screens, and professional-grade monitors fuels adoption. Ongoing improvements in nanotechnology and scalable production methods are making this technology more accessible. Consequently, Quantum Dot LCD solutions are gaining strong momentum in worldwide display applications.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, supported by its concentration of panel fabrication facilities and electronics manufacturing centers. Nations including China, South Korea, Japan, and Taiwan play pivotal roles in producing display components for various consumer and industrial applications. Well-developed supply networks, technological expertise, and ongoing capital investments reinforce regional leadership. Strong internal consumption alongside export-driven production sustains material demand. With continuous advancements in manufacturing efficiency and supportive industrial policies, Asia-Pacific maintains its position as the primary market for LCD display materials worldwide.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR due to expanding applications in electronics, automotive systems, medical devices, and commercial displays. Demand for high-quality, energy-efficient screens encourage the use of advanced materials, including enhanced optical films and quantum dot technologies. Increasing deployment of smart city infrastructure, digital communication platforms, and electric mobility solutions contributes to rising display integration. Continuous innovation and substantial research investments promote rapid technological adoption. As preference for premium and high-resolution display products strengthens, North America emerges as the leading region in terms of growth momentum.

Key players in the market

Some of the key players in LCD Display Materials Market include Merck KGaA, JNC Corporation, DIC Corporation, Bayi Space, Hecheng Display, Slichem Display, Toray Industries, Nissan Chemical, Sanritz Corp., Shijiazhuang Chengzhi Yonghua Display Materials, Rolic Technologies, BASF, Sumitomo Chemical, Yantai Xianhua Chem, Jiangsu Hecheng, WISETOP New Material and Shijiazhuang Yuanji.

Key Developments:

In November 2025, Merck KGaA has signed a 20-year power purchase agreement (PPA) with SK Innovation E&S to supply renewable electricity to its life science manufacturing sites in Daejeon and Songdo, South Korea. The agreement adds 16 megawatts (MW) of new renewable capacity and represents the company's longest energy commitment in the Asia-Pacific region.

In November 2025, Sumitomo Chemical is all set to expand its global footprint in the booming semiconductor market. The company has announced a definitive agreement to acquire 100% of Taiwan-based semiconductor process chemicals company Asia Union Electronic Chemical Corporation (AUECC). The deal, subject to standard regulatory approvals, will mark Sumitomo's first manufacturing base in Taiwan and its second in the United States, alongside its Texas facility.

In October 2025, BASF SE and ANDRITZ Group have signed a license agreement for the use of BASF's proprietary gas treatment technology, OASE® blue, in a carbon capture project planned to be implemented in the city of Aarhus, Denmark. The project aims to capture approximately 435,000 tons of CO₂ annually from the flue gases of a waste-to-energy plant for sequestration; the city of Aarhus has set itself the goal of becoming CO₂-neutral by 2030.

Material Types Covered:

Liquid Crystals

Polarizers

Color Filters

Backlight Units (BLU)

Substrates

Alignment Layers

Sealants & Spacers

Conductive Materials

Technologies Covered:

Twisted Nematic (TN)

In-Plane Switching (IPS)

Vertical Alignment (VA)

Mini-LED LCD

Quantum Dot LCD

Micro-LED Hybrid LCD

Applications Covered:

Consumer Electronics

Automotive Displays

Industrial Equipment

Medical Equipment

Smart Home Devices

Wearables & AR/VR Devices

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

2 RESEARCH FRAMEWORK

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
 - 2.4.1 Data Collection (Primary and Secondary)
 - 2.4.2 Data Modeling and Estimation Techniques
 - 2.4.3 Data Validation and Triangulation
 - 2.4.4 Analytical and Forecasting Approach

3 MARKET DYNAMICS AND TREND ANALYSIS

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

4 COMPETITIVE AND STRATEGIC ASSESSMENT

- 4.1 Porter's Five Forces Analysis
 - 4.1.1 Supplier Bargaining Power
 - 4.1.2 Buyer Bargaining Power
 - 4.1.3 Threat of Substitutes
 - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

5 GLOBAL LCD DISPLAY MATERIALS MARKET, BY MATERIAL TYPE

- 5.1 Liquid Crystals
- 5.2 Polarizers
- 5.3 Color Filters
- 5.4 Backlight Units (BLU)
- 5.5 Substrates
- 5.6 Alignment Layers
- 5.7 Sealants & Spacers
- 5.8 Conductive Materials

6 GLOBAL LCD DISPLAY MATERIALS MARKET, BY TECHNOLOGY

- 6.1 Twisted Nematic (TN)
- 6.2 In-Plane Switching (IPS)
- 6.3 Vertical Alignment (VA)
- 6.4 Mini-LED LCD
- 6.5 Quantum Dot LCD
- 6.6 Micro-LED Hybrid LCD

7 GLOBAL LCD DISPLAY MATERIALS MARKET, BY APPLICATION

- 7.1 Consumer Electronics
- 7.2 Automotive Displays
- 7.3 Industrial Equipment
- 7.4 Medical Equipment
- 7.5 Smart Home Devices
- 7.6 Wearables & AR/VR Devices

8 GLOBAL LCD DISPLAY MATERIALS MARKET, BY GEOGRAPHY

- 8.1 North America
 - 8.1.1 United States
 - 8.1.2 Canada
 - 8.1.3 Mexico

8.2 Europe

8.2.1 United Kingdom

8.2.2 Germany

8.2.3 France

8.2.4 Italy

8.2.5 Spain

8.2.6 Netherlands

8.2.7 Belgium

8.2.8 Sweden

8.2.9 Switzerland

8.2.10 Poland

8.2.11 Rest of Europe

8.3 Asia Pacific

8.3.1 China

8.3.2 Japan

8.3.3 India

8.3.4 South Korea

8.3.5 Australia

8.3.6 Indonesia

8.3.7 Thailand

8.3.8 Malaysia

8.3.9 Singapore

8.3.10 Vietnam

8.3.11 Rest of Asia Pacific

8.4 South America

8.4.1 Brazil

8.4.2 Argentina

8.4.3 Colombia

8.4.4 Chile

8.4.5 Peru

8.4.6 Rest of South America

8.5 Rest of the World (RoW)

8.5.1 Middle East

8.5.1.1 Saudi Arabia

8.5.1.2 United Arab Emirates

8.5.1.3 Qatar

8.5.1.4 Israel

8.5.1.5 Rest of Middle East

8.5.2 Africa

- 8.5.2.1 South Africa
- 8.5.2.2 Egypt
- 8.5.2.3 Morocco
- 8.5.2.4 Rest of Africa

9 STRATEGIC MARKET INTELLIGENCE

- 9.1 Industry Value Network and Supply Chain Assessment
- 9.2 White-Space and Opportunity Mapping
- 9.3 Product Evolution and Market Life Cycle Analysis
- 9.4 Channel, Distributor, and Go-to-Market Assessment

10 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES

- 10.1 Mergers and Acquisitions
- 10.2 Partnerships, Alliances, and Joint Ventures
- 10.3 New Product Launches and Certifications
- 10.4 Capacity Expansion and Investments
- 10.5 Other Strategic Initiatives

11 COMPANY PROFILES

- 11.1 Merck KGaA
- 11.2 JNC Corporation
- 11.3 DIC Corporation
- 11.4 Bayi Space
- 11.5 Hecheng Display
- 11.6 Slichem Display
- 11.7 Toray Industries
- 11.8 Nissan Chemical
- 11.9 Sanritz Corp.
- 11.10 Shijiazhuang Chengzhi Yonghua Display Materials
- 11.11 Rolic Technologies
- 11.12 BASF
- 11.13 Sumitomo Chemical
- 11.14 Yantai Xianhua Chem
- 11.15 Jiangsu Hecheng
- 11.16 WISETOP New Material
- 11.17 Shijiazhuang Yuanji

List Of Tables

LIST OF TABLES

Table 1 Global LCD Display Materials Market Outlook, By Region (2023-2034) (\$MN)

Table 2 Global LCD Display Materials Market Outlook, By Material Type (2023-2034) (\$MN)

Table 3 Global LCD Display Materials Market Outlook, By Liquid Crystals (2023-2034) (\$MN)

Table 4 Global LCD Display Materials Market Outlook, By Polarizers (2023-2034) (\$MN)

Table 5 Global LCD Display Materials Market Outlook, By Color Filters (2023-2034) (\$MN)

Table 6 Global LCD Display Materials Market Outlook, By Backlight Units (BLU) (2023-2034) (\$MN)

Table 7 Global LCD Display Materials Market Outlook, By Substrates (2023-2034) (\$MN)

Table 8 Global LCD Display Materials Market Outlook, By Alignment Layers (2023-2034) (\$MN)

Table 9 Global LCD Display Materials Market Outlook, By Sealants & Spacers (2023-2034) (\$MN)

Table 10 Global LCD Display Materials Market Outlook, By Conductive Materials (2023-2034) (\$MN)

Table 11 Global LCD Display Materials Market Outlook, By Technology (2023-2034) (\$MN)

Table 12 Global LCD Display Materials Market Outlook, By Twisted Nematic (TN) (2023-2034) (\$MN)

Table 13 Global LCD Display Materials Market Outlook, By In-Plane Switching (IPS) (2023-2034) (\$MN)

Table 14 Global LCD Display Materials Market Outlook, By Vertical Alignment (VA) (2023-2034) (\$MN)

Table 15 Global LCD Display Materials Market Outlook, By Mini-LED LCD (2023-2034) (\$MN)

Table 16 Global LCD Display Materials Market Outlook, By Quantum Dot LCD (2023-2034) (\$MN)

Table 17 Global LCD Display Materials Market Outlook, By Micro-LED Hybrid LCD (2023-2034) (\$MN)

Table 18 Global LCD Display Materials Market Outlook, By Application (2023-2034) (\$MN)

Table 19 Global LCD Display Materials Market Outlook, By Consumer Electronics

(2023-2034) (\$MN)

Table 20 Global LCD Display Materials Market Outlook, By Automotive Displays

(2023-2034) (\$MN)

Table 21 Global LCD Display Materials Market Outlook, By Industrial Equipment

(2023-2034) (\$MN)

Table 22 Global LCD Display Materials Market Outlook, By Medical Equipment

(2023-2034) (\$MN)

Table 23 Global LCD Display Materials Market Outlook, By Smart Home Devices

(2023-2034) (\$MN)

Table 24 Global LCD Display Materials Market Outlook, By Wearables & AR/VR

Devices (2023-2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) Regions are also represented in the same manner as above.

I would like to order

Product name: LCD Display Materials Market Forecasts to 2034 – Global Analysis By Material Type (Liquid Crystals, Polarizers, Color Filters, Backlight Units (BLU), Substrates, Alignment Layers, Sealants & Spacers and Conductive Materials), Technology, Application and By Geography

Product link: <https://marketpublishers.com/r/LDCE1CC32B33EN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/LDCE1CC32B33EN.html>