

Redefining Polymer Synthesis,

| Creating a Greener World
with the Most Natural Light.

ViSCURE⁺



VisCure's Green Chemistry Vision

STEP 1

✓ High-energy, pollutive

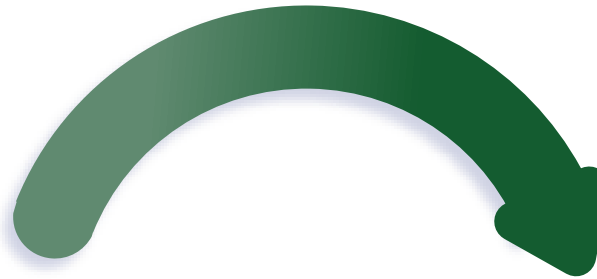
Thermal



UV



✓ Petroleum-based



ViSCURE⁺

A Paradigm Shift to
Eco-Friendly Polymers



✓ Cleaner production



Visible
light

✓ Eco-friendly materials



✓ Biodegradable



STEP 1.

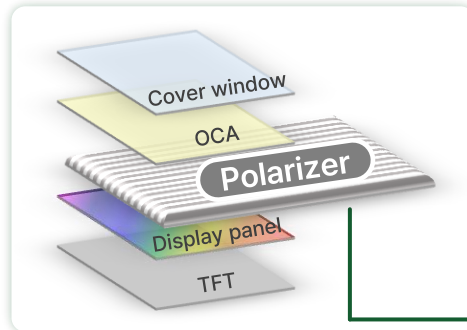
**Ultraviolet Light Blocking Optically Clear Adhesives
via Highly Efficient Visible-Light Curing**



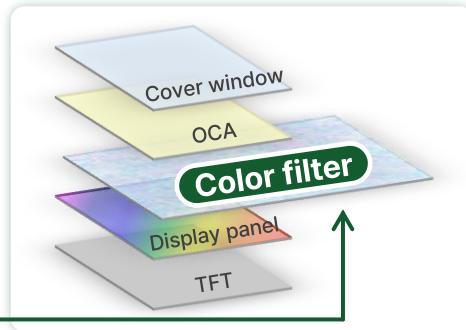
Power Consumption Issue in Display Panels

✓ Display Power Consumption Challenges and Solutions

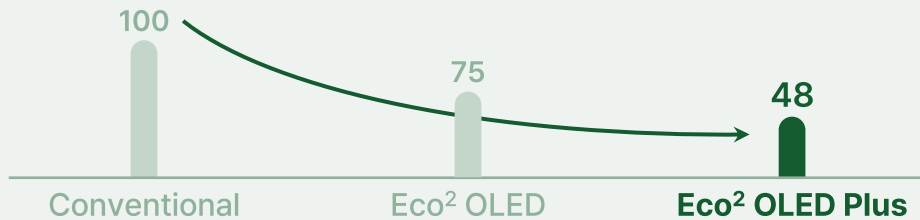
Conventional OLED



Eco² OLED



✓ Power Consumption



Polarizer-to-Color Filter Transition → Lower Power Consumption

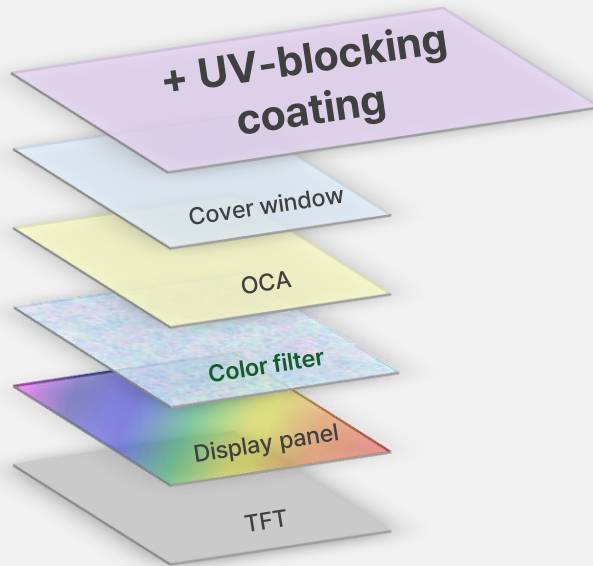
✓ A New Challenge: Loss of UV Protection



- › Color distortion
- › Decreased brightness
- › Loss of contrast
- › Reduced display performance
- › Shortened panel lifespan

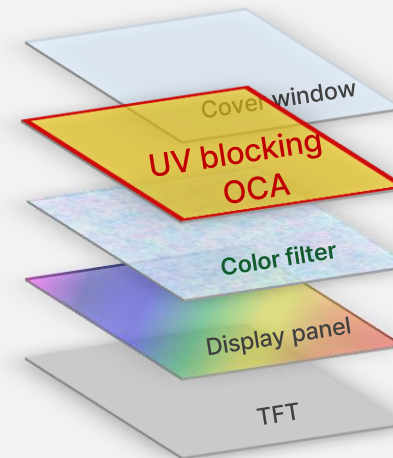
! Optically Clear Adhesive (OCA)

✓ Current Solution, but...



- > Incomplete UV blocking
- > Increased display thickness
- > Additional manufacturing process
 - Longer production time
 - Higher costs

✓ Our Solution



- > Simplified manufacturing process
 - Elimination of the UV-Blocking Coating Process
- > Foldable OLEDs
 - Expected cost savings: at least USD 33M/year
- > Automotive OLEDs
 - Market CAGR: 6.5%
 - Market expected to exceed USD 33M/year

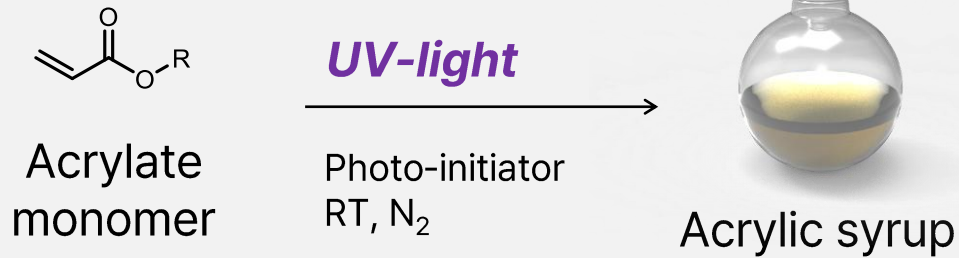
IHS Market

Omdia
Sigma Intel
Korea Display Industry Association

❗ Optically Clear Adhesive (OCA)

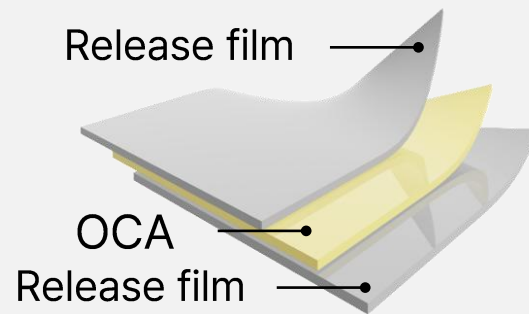
Conventional OCA Manufacturing Process

✓ UV Curing Method

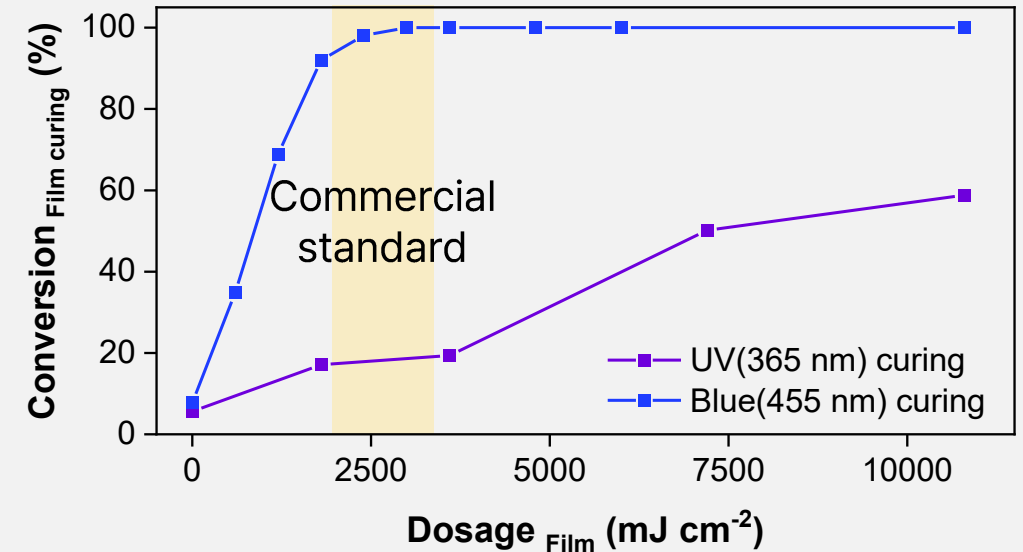


UV-light

Photo-initiator
 Additives
 RT



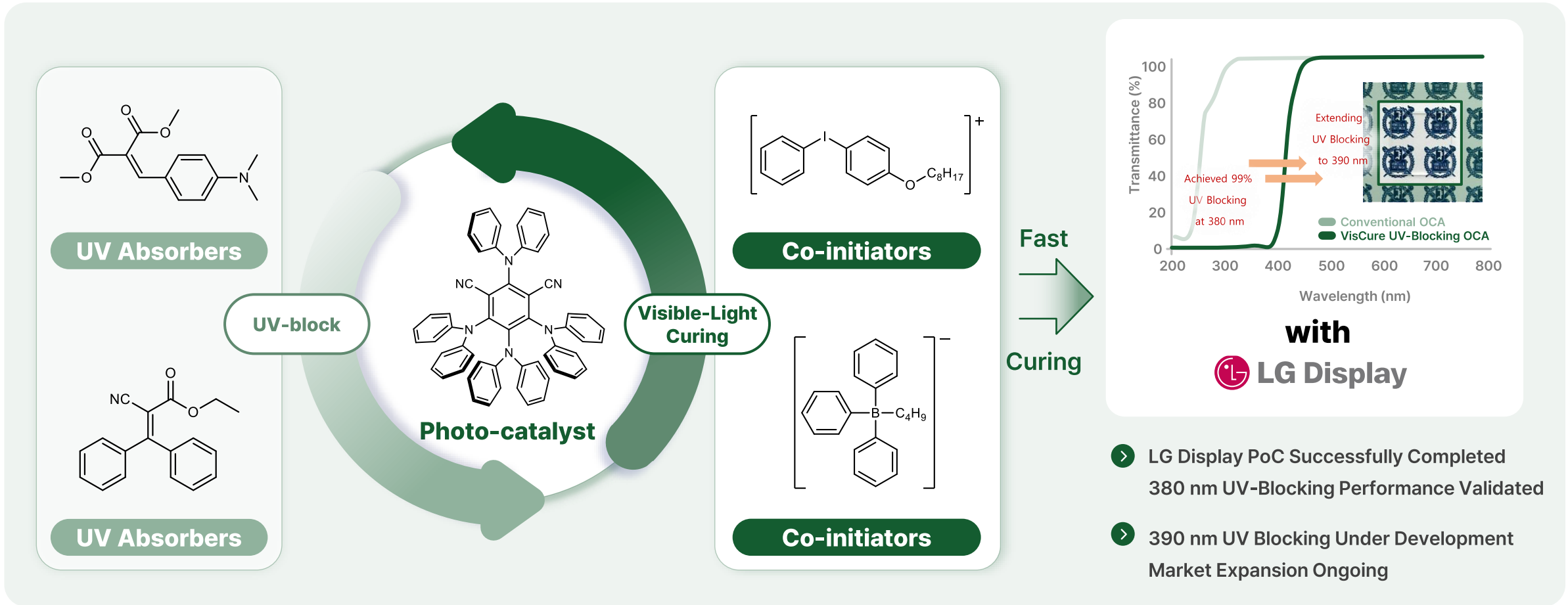
✓ Manufacturing Speed



> Commercial standard

- Dosage (mJ cm⁻²): **2,000–3,000**
- Data source: 3M OCA CEF XXXX series / Tesa 69xxx series

✓ Achieves UV Blocking of up to ~99.9% While Retaining Adhesive Performance



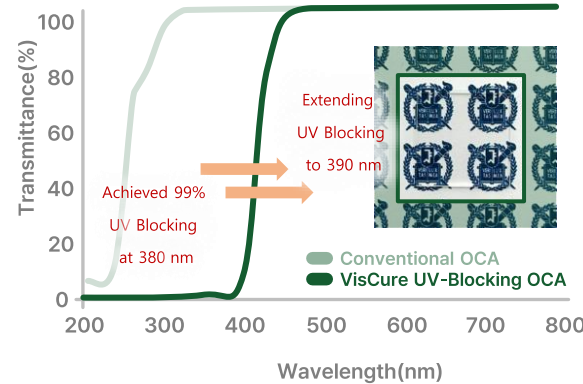
Lab- & Pilot-Scale Performance Validation Completed

✓ Manufacturing speed

Manufacturer (Model)	Cure energy (mJ/cm ²)
3M (LOCA 1088)	3,000
3M (LOCA 2175)	2,000
3M (LOCA 2321)	3,000
tesa (tesa® 69901)	1,000
VisCure	2,400

! Commercial Standard: 1,000–3,000 mJ/cm²

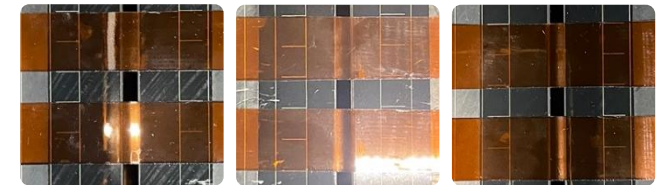
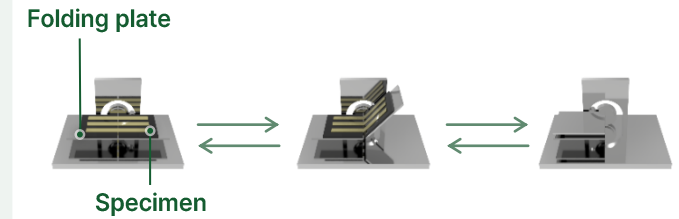
✓ UV Blocking Property



with
LG Display

- > LG Display PoC Successfully Completed
380 nm UV-Blocking Performance Validated
- > 390 nm UV Blocking Under Development
Market Expansion Ongoing

✓ Mechanical Property

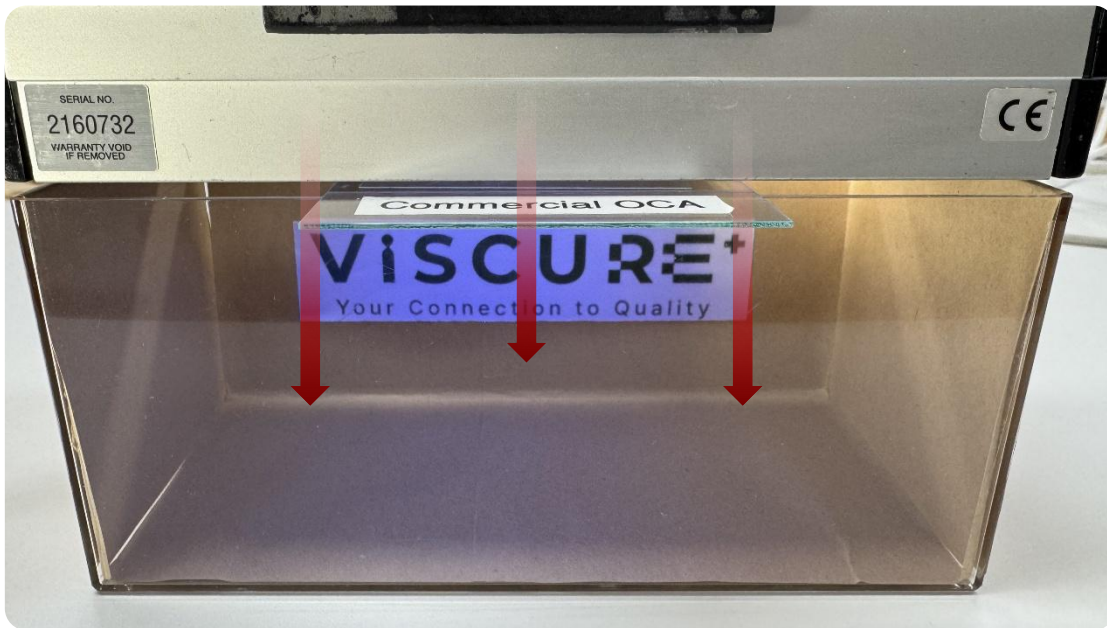


- > Passed Samsung Folding Reliability Standards
- > Passed LG Display Mechanical & Reliability Standards

Visual Evidence of UV Blocking Performance

✓ Conventional OCA Permits UV Transmission

UV lamp



UV transmitted

✓ Clear UV blocking by VisCure's OCA

UV lamp

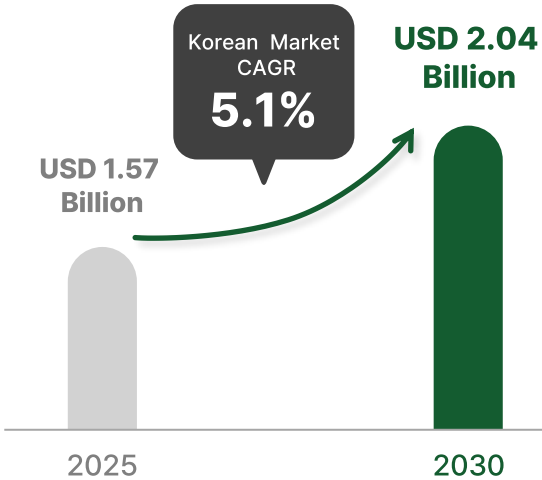


UV blocked



VisCure's OCA Completely Blocks UV Light, Enhancing Product Lifetime and Reliability

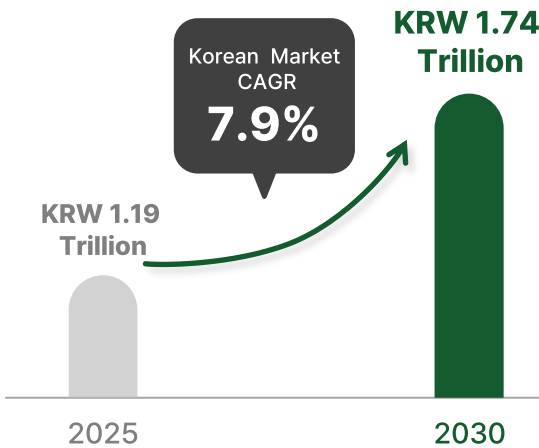
TAM (Adhesives)



Global Market **3.4% CAGR**
2025: USD 76.96 Billion
2030E: USD 91.23 Billion

Korean Market **5.1% CAGR**
2025: USD 1.57 Billion
2030E: USD 2.04 Billion

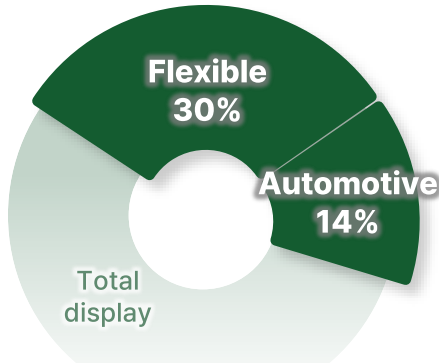
SAM (OCA for Display)



Global Market **7.9% CAGR**
2025: USD 2.50 Billion
2030E: USD 3.65 Billion

Korean Market
2025: KRW 1.19 Trillion
2030: KRW 1.74 Trillion

SOM (Our item)



- Limited Availability of Market Data
- Market Size Estimated Based on Flexible and Automotive Display Applications

Global Market **Minimum Market Size:**
USD 750 Million (2026)

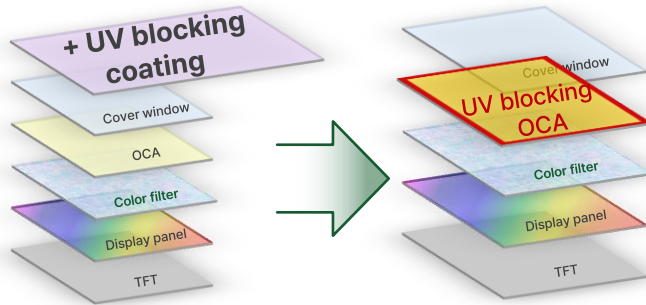
Korean Market **Minimum Market Size:**
KRW 350 Billion (2026)

MarketsandMarkets, Adhesives & Sealants Market, 2025
TechNavio, Global Adhesives and Sealants Market, 2025
Spherical Insights, South Korea Adhesives Market Size, Share, COVID-19 Impact Analysis, 2025

Proficient Market Insight, Global Electronic Optically Clear (OCA), 2025
Display Daily, 2024 Was a Rebound Year for Korea's Display Adhesive Industry, 2025
Mordor Intelligence, Display Market Size & Share Analysis - Growth Trends and Forecast (2026)

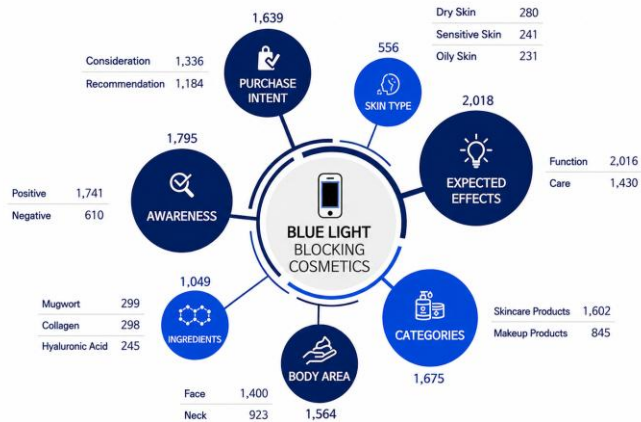
Fortune Business Insights, Flexible Display Market Size, Share, 2026
Mordor Intelligence, Automotive Display Market Size & Share Analysis, 2026

Process Simplification



- Enables thinner, lighter, and faster manufacturing of display structures
- Annual cost savings estimated at **USD 33M by 2025**

New Applications



INSIGHT KOREA DeepMining

- UV-blocking screeners applicable to cosmetic packaging
- Potential expansion to **organic photochemistry**

Eco-Friendly

	UV (365 nm)	Visible (455 nm)
Energy (mJ/cm ²)	3,000	600
Power (Wh, @ 100W)	8.33	1.67
CO₂ emissions (g)	3.7	0.74

Korea Forest Service (KFS)

- Replaces high-energy UV curing with **low-energy visible light**
- Contributes to **carbon neutrality**

Pioneers in Visible-Light Curable Adhesives



Driving company growth with
 deep expertise in adhesives
 and **strong leadership**

CEO Seokju Lee

Education

Seoul Nat'l Univ., M.S./Ph.D., Materials Engineering (2026)

Research Projects

MOTIE national project (2021–2024)

Samsung Display Industry-Academia #1, #2 (2023–2024)

LMS, LGD national projects (2024~)

LGD PoC support program (2025~)

Awards

Grand Prize, Samsung Display Industry-Academia Paper Contest (2023)

SNU Haedong Junior Startup Special Award (2024)

Grand Prize, 'Challenge-up' Lab Startup Demo Day (2024)

Lab Startup Festival — IR 2nd, Exhibition 1st (2024)

Best Award, SNAAC NAACst STEP 7th Demo Day (2025)

Director's Award, Daejeon-Sejong SMBA Startup Festival (2025)

Yeonam Pioneer Award, Jinju K-Entrepreneurship Contest (2025)

Selected & Pitched 'LGD Rep.', Seoul Open Innovation Launch Day (2025)



Top expert in **polymer**
 And **organic-material**
 synthesis and design

CTO Min Sang Kwon

Education

Seoul Nat'l Univ., Ph.D., Science (2011)

Career

Post Doc., Seoul Nat'l Univ. (2011–2013)

Post Doc., Univ. of Michigan (2011–2013)

Asst. Prof., UNIST Materials Science (2016–2020)

Asst. Prof., Seoul Nat'l Univ. Materials (2020–2022)

Assoc. Prof., Seoul Nat'l Univ. Materials (2022~)

Awards & Selected Publications

POSCO Science Fellowship (2019)

Advisory Board, Journal of Polymer Science (2021~)

Member, Y-KAST (Korea Academy of Science & Tech., 2024)

Nat. Catal. 1, 794-804 (2018)

Nat. Rev. Mater. 7, 74-75 (2022)

Chem. Soc. Rev. 52, 3035-3097 (2023)

Nat. Commun. 14, 92 (2023)

Adv. Mater. 35, 2204776 (2023)

Nat. Commun. 15, 2829 (2024)

Adv. Mater. 230981 (2024)

Pioneers in Visible-Light Curable Adhesives

Polymer Properties Expert


R&D
Donghyun Kang

Education

GIST, M.S. Materials Science (2024)

Research Projects

NRF mid-career project (2022–2024)

NRF Climate Change Response Tech R&D (2022–2024)

LGD PoC support program (2025)

CES & global market validation (2026)

Display Technology Expert


R&D
Youngju Kim

Education

Sungkyunkwan Univ., M.S. Materials Science (2024)

Career & Awards

Energy Tech R&D — eco BIPV perovskite modules (2022–2024)

Ultra-light flexible solar cells for HALE UAV (2022–2024)

3 patents: perovskite & polymer composites

Polymer Properties Researcher


R&D
Jaehoon Ahn

Education

Inha Univ., B.S. Materials Science (2023)

Research Projects

SNU prototype manufacturing support (2025)

LGD PoC support program (2025)

CES & global market validation (2026)

Display Technology Researcher


R&D
Jonghyun Kil

Education

Hanyang Univ., B.S. Electronics (2023)

Research Projects

Industry-Academia Collabo R&D (2025)

CES & global market validation (2026)

Reaction Mechanism Researcher


R&D
Jinhyuk Jang

Education

Chung-Ang Univ., Chemistry (enrolled 2021~)

Career & Awards

Hyundai Chung Mong-Koo Foundation ONSO Futures College, 4th (2024)

KAIST Nuclear/Quantum Engineering Materials Poster Excellence (2025)

Marketing Lead


MKT
Jungkwan Kim

Education

Sejong Univ., B.A. Public Admin. (2021) · Toyo Univ. exchange (2019)

Career

Marketer: 'Gongyeosadeul' YouTube 400K subs (~2026)

Prior: PR Team, SNU CIT; Editor, Dong-A x Naver InterBiz

Career Reliability & Scale-up Advisor


ADV
Jongwon Hwang

Ucsung Chemical & Kukdo Chemical

CEO, Amist Co., Ltd. (2021~)

Commercialization Results (Corporate)

Auto structural adhesives — high-strength core material (delivered 2024~)

Semiconductor SiP adhesive material (delivered 2024~)

Materials Technology Advisor


ADV
Kitae Nam

Education & Career

Seoul Nat'l Univ., B.S./M.S. Materials Eng. (2000, 2002)

MIT, Ph.D. Materials Engineering (2007)

Professor, Seoul Nat'l Univ. Materials Eng. (2010~)

Member, 20th Presidential Transition Comm. (Science/Tech/Education)

STEP 2

✓ Polluting Processes

Thermal



UV



✓ Petroleum-Based



ViSCURE⁺

A Paradigm Shift to
Eco-Friendly Polymers



✓ Cleaner Production

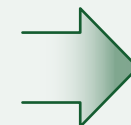


Visible
light

✓ Eco-Friendly Materials



✓ Biodegradable



STEP 3

✓ Polluting Processes

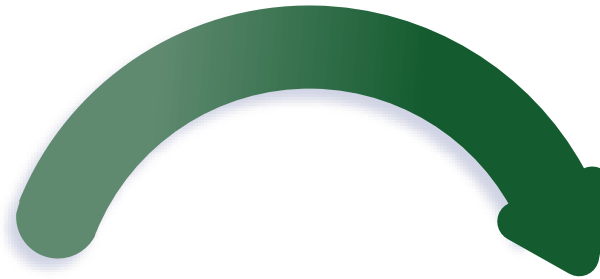
Thermal



UV



✓ Petroleum-Based



ViSCURE⁺

A Paradigm Shift to
Eco-Friendly Polymers



✓ Cleaner Production



Visible
light

✓ Eco-Friendly Materials



✓ Biodegradable



VisCure

Curing with Visible Light
Curing the Vision with New Technology

ViSCURE⁺

