

Adhesives_Sealants

Weekly Intelligence Report

2026-07-11 | 27 articles | 10 countries

troy-technical.jp

This Week's Keyword

Advanced Packaging

Materials & regulations reshape chip assembly

27

articles

Total Articles Analyzed

10

countries

Source Countries

\$3.12B

by 2034

De-seamable Adhesives

\$2.09B

by 2033

Aerospace Adhesives

All 27 Articles This Week — 5-Axis Evaluation Matrix

How to read columns — Tech Novelty: degree of breakthrough Market Proximity: closeness to commercialization Market Impact: industry-wide effect Data Reliability: quantitative data & peer review US/EU Relevance: direct impact on US/European companies & supply chains

#	Article Title	Type	Tech Novelty	Market Proximity	Market Impact	Data Reliability	US/EU Relevance	Summary
#01	Henkel US Dist	Corp Strat						Henkel partners with Applied Adhesives for exclusive US distribution in flexible packaging.
#02	BindEthics Bio-Adh	New Product						BindEthics launches industrial-scale production of bio-based, formaldehyde-free Ecohesive™ adhesive.
#03	Syensqo Aero Exp	Corp Strat						Belgian firm Syensqo expands US plant to boost aerospace adhesive production by over 30%.
#04	UL UV Adh Reg	Regulation						New UL 746E-2026 mandates <15% curing degradation for UV adhesives after 500 hours jetting.
#05	Arkema EV Binders	New Product						Arkema unveils advanced PVDF and acrylic binders for EV/ESS batteries, boosting LFP and solid-state development.
#06	Reversible Adh	Research						Researchers develop UV-cured coatings with reversible adhesion via disulfide bonds for recyclable packaging.
#07	Shin-Etsu Cosmetics	New Product						Shin-Etsu Silicones unveils new low-viscosity oil thickening silicone crosspolymers for cosmetics.
#08	Dymax Opt Adh	New Product						Dymax unveils low-shrinkage, high-clarity UV curable optical adhesives for precision bonding.
#09	Malaysia HBM Pkg	Industry Dev						Malaysian consortium develops HBM advanced packaging pilot line, with NSW Automation providing precision dispensing.
#10	Amkor Power Pkg	Tech Outlook						Amkor to present advanced power module packaging for AI era at SEMI Advanced Packaging Summit 2026.
#11	Amkor Glass Sub	Research						Amkor presents large package performance evaluation of glass core substrates for AI and HPC applications.
#12	3M Earnings	Financial						3M to announce Q2 2026 earnings, highlighting diverse product portfolio.
#13	Covestro HDI Acq	Corp Strat						Covestro acquires two HDI derivative plants in Thailand and USA, expanding global production capacity.

#	Article Title	Type	Tech Novelty	Market Proximity	Market Impact	Data Reliability	US/EU Relevance	Summary
#14	LYB Recycled Pkg	New Product						LYB & Mondelez commercialize Marabou chocolate packaging from 75% recycled plastic.
#15	DELO Bio-Adh	New Product						DELO unveils PHOTOBOND SJ4192, a high-performance multi-purpose adhesive primarily bio-based.
#16	Sumitomo CapEx	Corp Strat						Sumitomo Bakelite realigns 2026 CapEx to Asian fabrication nodes, showing 35.7% profit expansion.
#17	Indium TIM	Research Outlook						Indium Corp. expert to present TIM solutions for AI thermal challenges, focusing on gold-based die attach.
#18	HB Fuller Restruct	Corp Strat						H.B. Fuller prioritizes high-value markets after restructuring, achieving 5.8% revenue growth.
#19	TSMC Adv Pkg	Industry Shift						TSMC accelerates backend ecosystem reorganization, reshaping semiconductor competitive landscape via advanced packaging.
#20	Micro-CT Warpage	Tech Adoption						Micro-CT emerges as key non-destructive 3D analysis for semiconductor package warpage, addressing reliability.
#21	Henkel Q1 Growth	Financial						Henkel reports strong Q1 2026 organic sales growth of 1.7%, driven by Adhesive Technologies sector.
#22	De-seam Adh Mkt	Market Report						De-seamable adhesives market to reach \$3.12 billion by 2034, driven by sustainable bonding demand.
#23	Aero Adh Mkt	Market Report						Aerospace adhesive and sealants market to rapidly grow to \$2.09 billion by 2033.
#24	Dental Adh Mkt	Market Report						Dental adhesives and sealants market to reach \$10.44 billion by 2030, driven by 10.0% CAGR.
#25	IDTechEx Pkg Mat	Market Analysis						IDTechEx analyzes materials shaping future advanced semiconductor packaging, including Cu-Cu hybrid bonding.
#26	Instant Adh Mkt	Market Report						Instant adhesive market to grow to \$4.62 billion by 2033, driven by 6.8% CAGR.
#27	Underfill Mkt	Market Analysis						Underfill market growth driven by advanced packaging, emphasizing nano-fillers and low-viscosity for fine pitch.

●●●●○ High ●●●○● Med-High ●●○○○ Med ●○○○○ Low | Yellow highlight = featured article

Three Questions That Demand Your Decision This Week

❶ Is your advanced packaging material strategy ready for TSMC's ecosystem shift?

TSMC is reorganizing the backend ecosystem (#19), driving demand for 2.5D/3D Cu-Cu hybrid bonding, MUF, and glass panel substrates (#25, #11). Are your materials and processes optimized for these new paradigms, especially with UL 746E-2026 (#04) and warpage analysis (#20) becoming critical?

❷ Are your adhesive products meeting new EU/US sustainability mandates?

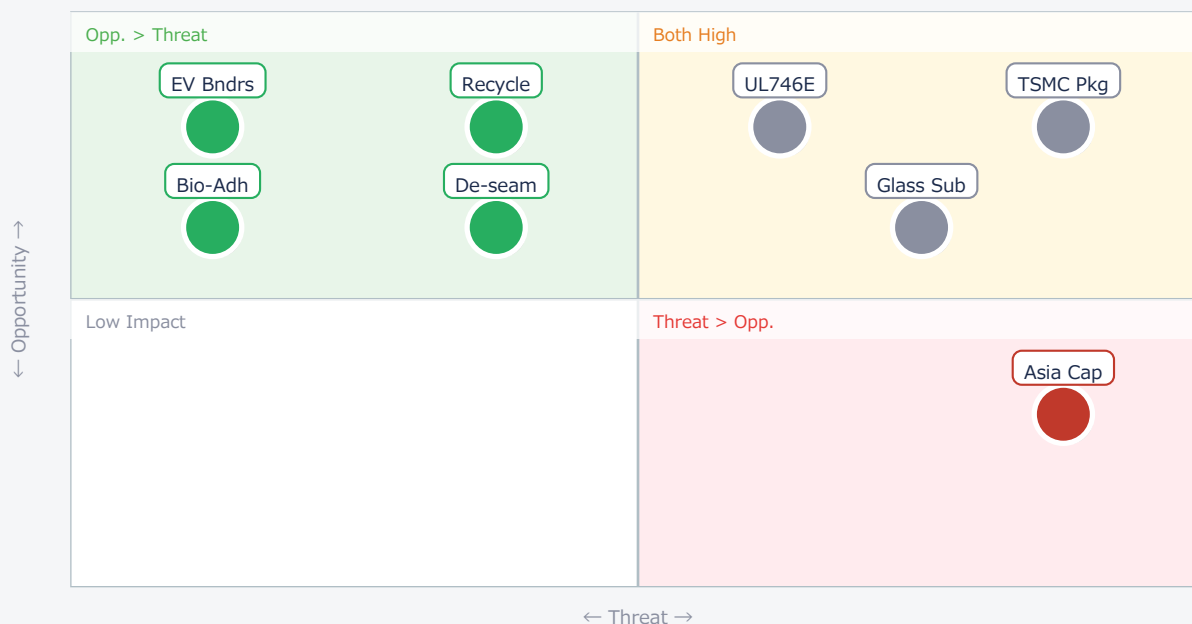
New EU REACH regulations on formaldehyde emissions (#02) and demand for recyclable packaging (#06, #14, #22) are creating a strong market for bio-based and de-seamable adhesives. Have you invested in R&D; for these eco-friendly, high-performance alternatives?

❸ How will evolving battery and aerospace demands impact your high-performance adhesive portfolio?

Arkema's new binders for LFP and solid-state EV/ESS batteries (#05) and Syensqo's aerospace expansion (#03) signal intense demand for specialized, high-performance adhesives. Are your offerings competitive in these critical, high-growth sectors?

Opportunities vs. Threats for US/European Companies

Opportunity vs. Threat Matrix for US/European Companies



Item	Quadrant	↑ Opportunity	↓ Threat
● UL746E	Critical	New product dev	Non-compliance risk
● TSMC Pkg	Critical	New material sales	Obsolete tech
● Glass Sub	Critical	Next-gen substrates	Organic substrate loss
● EV Bndrs	Opp.	Battery market share	Competitor gain
● Recycle	Opp.	Sustainable pkg	Traditional obsolete
● Bio-Adh	Opp.	Green building	Formaldehyde ban

● De-seam	Opp.	New market growth	Missed opportunity
● Asia Cap	Threat	Supply chain access	US/EU market share

Deep Dive ① — Reversible Adhesion for Circular Economy

#06 | 2026/07/09 | European Coatings | Tech Novelty●●●●● Proximity●●○○○ Market Impact●●●●● Data Reliability●●●●● US/EU Relevance●●●●●○

Researchers developed a photoinitiator-free UV-cured coating with reversible adhesion, combining substrate silanization and dynamic disulfide chemistry. This enables robust bonding and on-demand debonding.

The breakthrough allows easy separation of layers in multi-layer packaging, facilitating recycling of complex composites and advancing circular economy goals beyond traditional adhesives.

► Strategic Analyst's Perspective

Strategic Analyst's Perspective: The concept of reversible adhesion is a game-changer, but scaling from lab to industrial application for diverse substrates and stimuli remains a significant technical barrier. Published results are likely under ideal lab conditions. [Opportunity]: US/EU materials & chemical firms can invest in R&D; for commercializing this technology, targeting sustainable packaging and electronics disassembly. OEMs can gain a competitive edge with truly recyclable products. [Threat]: Companies relying on traditional, non-recyclable multi-layer adhesive systems face obsolescence and regulatory pressure. Asian competitors may quickly commercialize if US/EU are slow. Next Actions: [R&D;] Initiate internal research or partner with academic institutions to explore disulfide chemistry for specific applications. [Strategy] Assess long-term impact on product lifecycle and recycling infrastructure by Q4 2026.

Deep Dive ② — Next-Gen Binders for EV/ESS Batteries

#05 | 2026/07/07 | CoatingsPro | Tech Novelty●●●●○ Proximity●●●●○ Market Impact●●●●● Data Reliability●●●○○ US/EU Relevance●●●●●

Arkema unveiled new PVDF grades (Kynar® HSV 1200/1400) to boost LFP cathode adhesion and energy density, plus acrylic binders for separators and PVDF cobinders for adhesion layers.

These materials enhance battery performance, safety, and durability, while Arkema also accelerates development of next-gen binders for all-solid-state batteries, addressing critical market needs.

► Strategic Analyst's Perspective

Strategic Analyst's Perspective: Arkema's announcements are credible, building on their strong polymer expertise. The challenge lies in widespread adoption and integration into existing battery manufacturing lines, which requires extensive validation. [Opportunity]: US/EU battery manufacturers and OEMs can leverage these advanced binders to improve LFP battery performance and accelerate solid-state battery development, gaining a competitive edge in EV/ESS markets. [Threat]: Competitors failing to innovate in binder materials risk falling behind in battery performance and cost-effectiveness, especially as LFP and solid-state gain traction. Next Actions: [R&D;] Evaluate Arkema's new binder samples for LFP and solid-state battery prototypes immediately. [Procurement] Engage with Arkema to understand supply chain readiness and pricing for large-scale adoption by Q3 2026.

Deep Dive ③ — New UL Standard for UV Adhesives

#04 | 2026/07/05 | Industry Compliance Update | Tech Novelty●●●○○ Proximity●●●●● Market Impact●●●●○
Data Reliability●●●○○ US/EU Relevance●●●●●

Effective July 1, 2026, UL 746E-2026 mandates UV-curing adhesives in North America show <15% curing performance degradation after 500 hours of continuous piezo-jet valve operation.

This regulation requires third-party verification, impacting material selection, production line qualification, and technical agreements for high-precision applications like electronics and medical devices.

► Strategic Analyst's Perspective

Strategic Analyst's Perspective: The regulation is concrete and already in effect, making the data highly reliable. The technical challenge is significant for adhesive formulators to ensure long-term stability under continuous jetting. [Opportunity]: US/EU adhesive suppliers who can meet or exceed this standard will gain significant market share and trust in North America. OEMs benefit from enhanced product reliability. [Threat]: Non-compliant adhesive suppliers will be locked out of critical North American markets. OEMs using non-certified adhesives face product reliability issues and potential recalls. Next Actions: [R&D;] Immediately review all UV adhesive formulations for compliance and initiate testing. [Procurement] Demand UL 746E-2026 certification from all UV adhesive suppliers for North American products by end of July 2026.

Other Notable Articles

#02 BindEthics Launches Industrial-Scale Production of Bio-based, Formaldehyde-Free Ecohesive™ Adhesive (Packaging Europe)
Tech Novelty●●●●○ Proximity●●●●○ Market Impact●●●●○

UK firm scales bio-based, formaldehyde-free adhesive, targeting EU REACH compliance and sustainable wood products.

#19 TSMC Accelerates Backend Ecosystem Reorganization, Reshaping Semiconductor Competitive Landscape as Advanced Packaging Breaks Process Shrinkage Limits (The Economy)
Tech Novelty●●●●○ Proximity●●●○○ Market Impact●●●●●

TSMC's advanced packaging investments reshape semiconductor landscape, driving demand for new materials.

#11 Amkor Technology Presents Large Package Performance Evaluation of Glass Core Substrates for AI and HPC Applications at ECTC 2026 (Amkor Technology)
Tech Novelty●●●●○ Proximity●●○○○ Market Impact●●●●●

Amkor's research on glass core substrates is key for next-gen AI/HPC packaging, offering superior electrical/thermal properties.

#14 LyondellBasell and Mondelez Collaborate to Commercialize Marabou Chocolate Packaging Sourced from 75% Recycled Plastic, Utilizing 100% Recycled Content CirculenRevive Polymers (LyondellBasell - Investors)
Tech Novelty●●●○○ Proximity●●●●● Market Impact●●●●○

LYB and Mondelez launch 75% recycled plastic packaging, setting a new standard for sustainable food packaging.

Recommended Actions This Week

Action recommendations based on article evaluation matrix and opportunity/threat analysis.

■ Immediate (this week)

- [R&D;] Review all UV adhesive product lines for compliance with new UL 746E-2026 standards for North American markets.
- [Procurement] Contact UV adhesive suppliers to confirm UL 746E-2026 certification status and request compliance documentation.
- [Strategy] Begin initial assessment of TSMC's advanced packaging ecosystem shift and its implications for semiconductor material sourcing.

■ Short-term (1 month)

- [R&D;] Initiate feasibility studies for bio-based and de-seamable adhesive formulations, focusing on packaging and construction applications.
- [Business Dev] Engage with Arkema and other battery material innovators to evaluate new EV/ESS binder technologies for integration into next-gen battery platforms.
- [Supply Chain] Conduct a risk assessment on current semiconductor packaging material suppliers in light of increasing Asian CapEx and advanced packaging demands.

■ Medium-long term (quarter+)

- [R&D;] Establish long-term research programs for reversible adhesion technologies, exploring applications in multi-layer recycling and electronics repair.
- [Strategy] Develop a comprehensive IP strategy for advanced packaging materials, including glass core substrates and novel underfills, to secure future market positions.
- [Executive] Evaluate potential M&A; or strategic partnerships with companies leading in sustainable adhesives or advanced packaging materials to accelerate market entry.

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Adhesives_Sealants — Selected Articles

Date: 2026-07-11

Articles: 27

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#16 Sumitomo Bakelite Realigns 2026 CapEx to Asian Fabrication Nodes as 35.7% Operating Profit Expansion Signals Structural De-commoditization in Semiconductor Encapsulation Materials

#17 Indium Corporation Expert to Present TIM Solutions for AI Thermal Challenges at IMAPS ThermCon, Focusing on Gold-Based Die Attach Preforms for High-Power Laser and RF Applications

#18 H.B. Fuller Prioritizes High-Value Markets Following Portfolio Restructuring and Flooring Business Divestiture, Achieving 5.8% Revenue Growth and Improved Margins

#19 TSMC Accelerates Backend Ecosystem Reorganization, Reshaping Semiconductor Competitive Landscape as Advanced Packaging Breaks Process Shrinkage Limits

#20 Micro-CT Emerges as Key Non-Destructive 3D Analysis Approach for Semiconductor Package Warpage, Addressing Critical Reliability Challenges

#21 Henkel Reports Strong Q1 2026 Organic Sales Growth of 1.7%, Driven by Adhesive Technologies Sector, Completes €1 Billion Share Buyback

#23 Strategic Packaging Insights Forecasts De-seamable Adhesives Market to Reach \$3.12 Billion by 2034, Driven by Demand for Sustainable Bonding Solutions

#26 openPR Forecasts Aerospace Adhesive and Sealants Market to Rapidly Grow to \$2.09 Billion by 2033

#27 openPR Forecasts Dental Adhesives and Sealants Market to Reach \$10.44 Billion by 2030, Driven by 10.0% CAGR

#28 IDTechEx Analyzes Materials Shaping the Future of Advanced Semiconductor Packaging, Including 2.5D/3D Cu-Cu Hybrid Bonding and Glass Panel-Based Technologies

#29 openPR Forecasts Instant Adhesive Market to Grow to \$4.62 Billion by 2033, Driven by 6.8% CAGR

#30 Data Insights Reports Forecasts Electronic Circuit Board Underfill Market Growth Driven by Advanced Semiconductor Packaging Demand, Emphasizing Nano-Fillers for Enhanced Thermal Conductivity and Low-Viscosity for Sub-80 µm Bump Pitch

#01 Henkel Forges Exclusive US Distribution Partnership with Applied Adhesives to Dominate Flexible Packaging Market

Published July 08, 2026 PR Newswire USA



OVERVIEW

Henkel Adhesive Technologies has announced an exclusive distribution partnership with Applied Adhesives to significantly expand its footprint in the US flexible packaging market. This collaboration leverages Henkel's advanced adhesive and coating technologies with Applied Adhesives' extensive sales, technical service, and logistics network. The initial focus will be on high-demand applications in food and beverage, health and beauty, and pet products, aiming to enhance customer access and support across the region.

Key Findings

Henkel Adhesive Technologies has established an exclusive distribution partnership with Applied Adhesives, aiming to significantly bolster its presence in the US flexible packaging market. This strategic collaboration will integrate Henkel's cutting-edge adhesive and coating technologies with Applied Adhesives' robust distribution network, advanced technical services, efficient inventory management, and established logistics infrastructure across the United States.

Technical/Clinical Details

The partnership will initially concentrate on high-growth segments within flexible packaging, specifically for food and beverage, health and beauty, and pet product applications. Henkel provides a broad portfolio of adhesives and coatings engineered to meet the stringent performance, safety, and sustainability requirements of these sectors. Applied Adhesives, with its regional expertise and customer-centric approach, will ensure effective product deployment and comprehensive technical support. This integrated strategy is expected to enhance end-product quality, optimize production efficiency, and accelerate time-to-market for converters.

Background & Context

The flexible packaging market continues to experience robust growth, driven by increasing consumer demand for convenience, product protection, and sustainable solutions. Adhesive and coating technologies are pivotal in enabling critical functionalities such as bond strength in multi-layer films, barrier properties, and recyclability. This alliance combines Henkel's global R&D capabilities with Applied Adhesives' deep understanding of the local market, positioning them to address evolving industry needs and deliver optimal solutions to customers.

Strategic Significance & Outlook

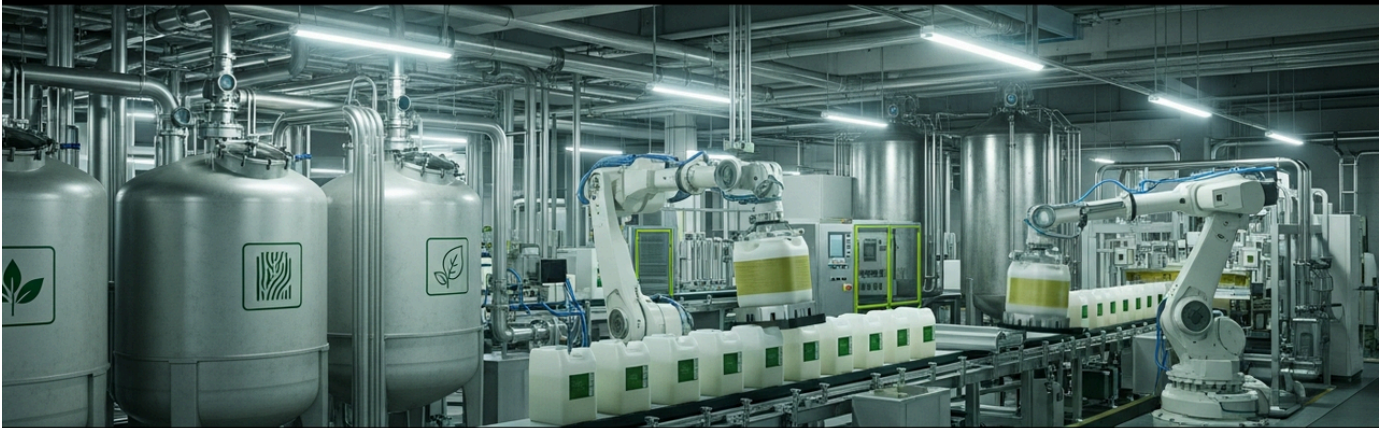
This partnership presents a significant opportunity for Henkel's Adhesive Technologies business unit to expand its market share and accelerate revenue growth in North America. For Applied Adhesives, it serves as a foundation to strengthen its product portfolio and enhance its value proposition to customers, thereby establishing a competitive edge. Both companies are poised to drive further innovation and adoption of advanced flexible packaging solutions, contributing to the development of a more sustainable packaging industry.

Source: <https://www.prnewswire.com/news-releases/applied-adhesives-named-exclusive-us-distributor-for-henkel-flexible-packaging-technologies-302819822.html>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#02 BindEthics Launches Industrial-Scale Production of Bio-based, Formaldehyde-Free Ecohesive™ Adhesive

Published July 06, 2026 Packaging Europe UK



OVERVIEW

UK-based BindEthics has commenced industrial-scale production of its bio-based, formaldehyde-free adhesive, Ecohesive™, scaling up from 40-liter to 2,000-liter batches. This innovative adhesive aims to eliminate hazardous formaldehyde resins from building and furniture supply chains while enhancing the recyclability of engineered wood products. The commercial scale-up addresses new EU REACH regulations on formaldehyde emissions and marks a significant breakthrough for sustainable, high-performance bonding solutions.

Key Findings

BindEthics has successfully initiated industrial-scale production of its groundbreaking bio-based, formaldehyde-free adhesive, Ecohesive™. This innovative adhesive is designed to completely eliminate hazardous formaldehyde-based resins from the construction and furniture supply chains, simultaneously enhancing the recyclability and circularity of engineered wood products. The significant scale-up from 40-liter pilot batches to 2,000-liter production capacities marks a crucial step in meeting the escalating demand for sustainable adhesive solutions.

Technical/Clinical Details

Ecohesive™ is a high-performance structural adhesive developed from bio-based feedstocks, intentionally avoiding reliance on fossil fuels and petrochemicals. The technology is engineered as a 'drop-in' solution, ensuring compatibility with existing industrial mixing and pressing equipment, thereby facilitating seamless adoption for manufacturers without requiring substantial infrastructure overhauls. By maintaining robust bonding performance while eliminating formaldehyde, Ecohesive™ contributes to safer working environments and a reduced environmental footprint for end products.

Background & Context

The adhesive industry is undergoing a significant transformation driven by tightening environmental regulations and growing consumer awareness regarding sustainability. The impending enforcement of stricter EU REACH regulations on formaldehyde emissions (effective August 6, 2026) is compelling manufacturers to seek viable alternative solutions. With the UK particleboard sector alone consuming approximately £388 million worth of urea-formaldehyde adhesives annually, alternatives like Ecohesive™ are poised to create substantial market impact.

Strategic Significance & Outlook

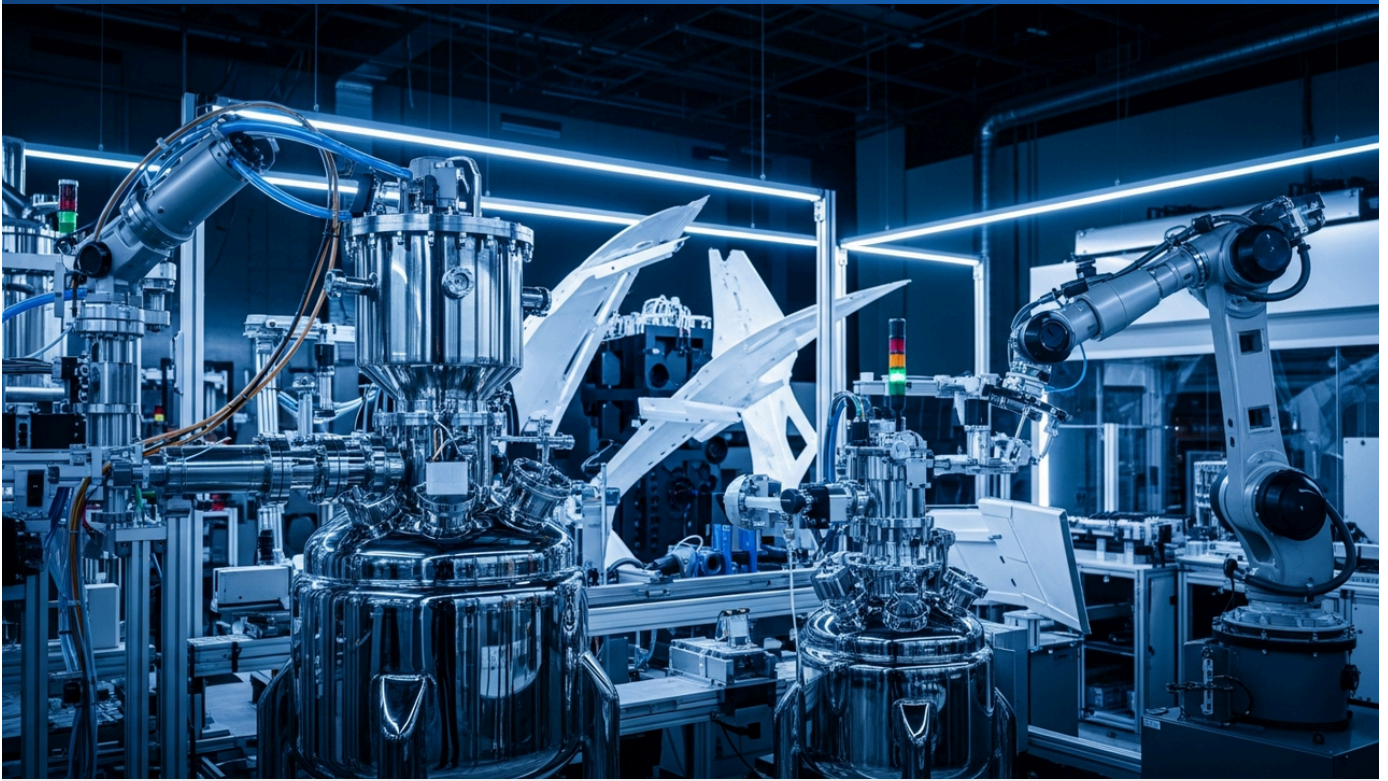
The transition to industrial-scale production positions BindEthics as a key player in the sustainable building materials market. The availability of a high-performance, environmentally friendly adhesive is expected to accelerate decarbonization and the transition towards a circular economy across wood processing, furniture manufacturing, and other industrial sectors. With customer trials commencing in 2026 and full market introduction, Ecohesive™ is set to establish new industry standards and contribute to the widespread adoption of healthier, more sustainable products.

Source: <https://packagingeurope.com/news/bio-based-adhesive-from-bindethics-begins-industrial-scale-production/14468.article>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#03 Belgian Chemical Firm Syensqo Breaks Ground on Multi-Million Dollar US Expansion to Boost Aerospace Adhesives by Over 30%

Published July 09, 2026 Industrial Equipment News USA



OVERVIEW

Belgian chemical company Syensqo has commenced a multi-million dollar expansion of its manufacturing site in Havre de Grace, Maryland, USA. This investment will increase production capacity for advanced structural adhesives, bonding films, and primer materials by over 30%, primarily serving the aerospace market. The expansion aims to enhance supply reliability for aerospace, defense, and automotive sectors, addressing increased customer demand and solidifying Syensqo's leadership in high-growth markets.

Key Findings

Syensqo, a Belgian chemical company, has broken ground on a multi-million dollar expansion of its manufacturing facility in Havre de Grace, Maryland, USA. This significant investment is projected to increase the production capacity for advanced structural adhesives, bonding films, and primer materials by over 30%, predominantly catering to the rigorous demands of the aerospace market. This strategic expansion underscores Syensqo's commitment to reliably and rapidly meet growing global demand.

Technical/Clinical Details

The expansion is specifically geared towards enhancing the production of high-performance materials engineered for critical applications in aerospace, defense, and automotive industries. Syensqo's structural adhesives deliver superior strength, durability, and lightweighting properties under extreme conditions, making them indispensable for the design of next-generation aircraft and vehicles. The augmented capacity ensures that these advanced materials can be manufactured at the scale required to satisfy increasing customer needs.

Background & Context

The aerospace and defense sectors are increasingly adopting composite materials and lightweight designs to improve fuel efficiency and performance, driving a significant surge in demand for high-performance adhesives and sealants. Similarly, the automotive industry, particularly in electric vehicles (EVs), relies on such materials for vehicle body lightweighting and structural bonding of battery components. Syensqo's investment strengthens supply reliability in these critical industries, cementing its position as a strategic partner.

Strategic Significance & Outlook

This US facility expansion is part of Syensqo's long-term strategy to extend its leadership in high-growth market segments through innovative material solutions. The enhanced production capabilities will enable customers to secure essential materials for their cutting-edge projects, thereby strengthening Syensqo's market competitiveness. This investment demonstrates Syensqo's contribution to fortifying global supply chains and supporting the advancement of next-generation aerospace and automotive technologies.

Source: <https://www.ien.com/operations/news/22970250/belgian-adhesive-maker-breaks-ground-on-us-expansion>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#04 New UL 746E-2026 Regulation Mandates <15% Curing Performance Degradation for UV Adhesives After 500 Hours of Continuous Jetting in North America

Published July 05, 2026 Industry Compliance Update USA



OVERVIEW

Effective July 1, 2026, UL 746E-2026 is mandatory for UV-curing adhesives in North America, requiring third-party verification that curing performance degradation does not exceed 15% after 500 hours of continuous piezo-jet valve operation. This regulation directly impacts material selection, production line qualification, and technical agreements for products targeting the North American market. The new standard aims to ensure long-term reliability and performance consistency for UV adhesives in high-precision applications.

Key Findings

A new regulatory standard, UL 746E-2026, has become mandatory for UV-curing adhesives targeting the North American market, effective July 1, 2026. This updated requirement stipulates that UV adhesives utilized in continuous piezo-jet valve operations must demonstrate, through third-party verification, that their curing performance degradation does not exceed 15% after 500 hours of continuous jetting. This critical standard is designed to ensure the stability and reliability of UV adhesives in high-precision, high-speed production environments.

Technical/Clinical Details

The introduction of UL 746E-2026 establishes a rigorous new benchmark for evaluating the performance of UV-curing adhesives. While initial performance characteristics have traditionally been assessed, the long-term stability and sustained curing properties—specifically curing speed and bond strength—after repetitive dispensing and curing cycles, had not been adequately standardized. The 500-hour continuous jetting test accurately simulates the performance degradation behavior of adhesives under prolonged, real-world production conditions, providing an objective measure of their durability. This requirement is particularly vital for sectors such as electronics manufacturing and medical device assembly, where precision and unwavering bond reliability are paramount.

Background & Context

UV-curing adhesives are widely adopted in the manufacturing of electronic components, medical devices, and optical assemblies due to their rapid cure times, precise application capabilities, and solvent-free formulations. However, in increasingly miniaturized component manufacturing processes, even minor fluctuations in adhesive performance can significantly compromise product quality and reliability. The enhanced UL regulation aims to elevate quality standards in these high-value applications, necessitating further optimization in material selection, formulation development, and manufacturing processes from suppliers. Furthermore, this new standard will serve as a crucial metric in technical agreements between suppliers and users.

Strategic Significance & Outlook

The implementation of UL 746E-2026 is expected to accelerate innovation and quality competition within the North American UV-curing adhesive market. Adhesive manufacturers will need to focus on developing new formulations with superior long-term curing stability and revise their testing and quality control protocols. This will lead to the supply of adhesives with guaranteed long-term reliability, significantly enhancing the safety and dependability of products in high-precision manufacturing sectors. Ultimately, this regulation will contribute to delivering higher quality and safer products to consumers.

Source: https://www.tradeaspect360.com/news/electronic-adhesives/UV_Curing_Adhesives/UL_746E_2026_Takes_Effect_for_UV_Adhesives.html

Collected: July 10, 2026 | Automated Research System (Gemini API)

#05 Arkema Unveils Advanced PVDF and Acrylic Binders for EV and ESS Batteries at The Battery Show Europe 2026, Boosting LFP Performance and Driving Solid-State Development

Published July 07, 2026 CoatingsPro France



OVERVIEW

Arkema showcased innovative material solutions for EV and Energy Storage System (ESS) batteries at The Battery Show Europe 2026, introducing new PVDF grades (Kynar® HSV 1200 and HSV 1400) to enhance LFP cathode adhesion and energy density. The company also presented Incellion™ Sp 1252 acrylic binder for ceramic-coated separators and Incellion™ Sp 450 PVDF cobinder for adhesion layers, while advancing next-generation binders for solid-state batteries. These materials target improved performance, safety, and durability in critical battery applications.

Key Findings

Arkema made significant announcements at The Battery Show Europe 2026, unveiling groundbreaking solutions and innovations for electric vehicle (EV) and energy storage system (ESS) battery systems. Notably, the company introduced new PVDF (Polyvinylidene Fluoride) grades, Kynar® HSV 1200 and Kynar® HSV 1400, specifically designed to dramatically improve the adhesion and energy density of Lithium Iron Phosphate (LFP) cathodes. Additionally, Arkema showcased Incellion™ Sp 1252, an innovative acrylic binder for ceramic-coated separators, and Incellion™ Sp 450, a PVDF cobinder for adhesion layers, while also accelerating the development of next-generation binder materials for all-solid-state batteries.

Technical/Clinical Details

The Kynar® HSV 1200 and HSV 1400 grades contribute to stabilizing the LFP cathode's electrode structure, leading to enhanced cycle life and charging efficiency. These PVDF grades offer exceptional chemical stability and resistance to electrolytes, maintaining stable battery performance even under high-temperature conditions. The Incellion™ Sp 1252 acrylic binder improves the adhesion of ceramic-coated separators, reducing the risk of internal short circuits and thereby boosting safety and reliability. The Incellion™ Sp 450 PVDF cobinder optimizes the strength and flexibility of adhesion layers, reinforcing the overall mechanical stability of battery cells. The development of solid-state battery binders represents a crucial next step toward achieving even higher energy densities and safety profiles.

Background & Context

Battery technology plays a central role in the proliferation of EVs and the integration of renewable energy, driving intense demand for higher performance, safer, and longer-lasting battery materials. LFP batteries, in particular, are experiencing increased demand due to their cost-effectiveness, but improvements in energy density and adhesion performance have been key challenges. Furthermore, all-solid-state batteries, envisioned as the next generation, promise significant advancements in safety and energy density compared to current lithium-ion batteries. Their realization critically depends on innovative materials, especially binders that can robustly join electrodes and solid electrolytes. Arkema's recent announcements directly address these pressing market needs.

Strategic Significance & Outlook

The new materials introduced by Arkema have the potential to push the boundaries of battery performance in both EV and ESS markets, significantly contributing to the realization of sustainable energy solutions. The PVDF grades for LFP cathodes will improve the cost-to-performance ratio of batteries, accelerating EV adoption and reducing overall costs. Moreover, the development of next-generation binder materials for all-solid-state batteries is expected to enable breakthroughs in future battery technologies, potentially revolutionizing the energy storage sector. Through continuous R&D, Arkema is solidifying its position as a key innovator supporting the evolution of the battery ecosystem.

Source: <https://content.ampp.org/coatingspro/magazine-article/16023/Arkema-Showcases-Innovative-Materials-at-the>

#06 Researchers Develop UV-Cured Coatings with Reversible Adhesion via Disulfide Bonds, Unlocking New Possibilities for Recyclable Multi-Layer Packaging

Published July 09, 2026 European Coatings Germany



OVERVIEW

Researchers have developed innovative UV-cured coatings with reversible adhesion by combining substrate silanization with dynamic disulfide chemistry. This photoinitiator-free system achieves both strong adhesion and on-demand debonding. The technology opens new avenues for sustainable packaging solutions by enabling the recycling of traditionally difficult-to-separate multi-layer composites, marking a significant advancement towards a circular economy.

Key Findings

Researchers have developed a groundbreaking UV-cured coating system featuring reversible adhesion, achieved by integrating substrate silanization with dynamic disulfide chemistry. This novel technology enables robust adhesion while allowing for on-demand debonding. Crucially, the system is photoinitiator-free, leading to a reduced environmental footprint and a cleaner manufacturing process. This achievement addresses significant challenges in recycling complex multi-material composites and paves the way for advanced sustainable packaging solutions.

Technical/Clinical Details

The developed coating enhances adhesion through silanization of the substrate surface, followed by UV curing of a polymer network incorporating dynamic disulfide bonds. Disulfide bonds possess a unique dynamic property, allowing them to reversibly cleave and reform in response to specific external stimuli (e.g., heat or certain chemicals), thus enabling on-demand debonding and re-adhesion of the coating. The 'photoinitiator-free' approach circumvents contamination and toxicity issues associated with byproducts typically generated by photoinitiators in conventional UV curing processes, offering a safer and more eco-friendly material. For multi-layer packaging, where different materials are often strongly bonded and difficult to separate, this technology facilitates layer separation, enabling the recycling of individual components.

Background & Context

The packaging industry faces immense pressure to address plastic waste and increase recycling rates, with multi-layer composite materials posing a particularly difficult challenge. Conventional adhesives create exceptionally strong bonds, making it arduous to efficiently separate the distinct polymer layers that constitute multi-layer films. This difficulty has historically been a major barrier to effective recycling processes. The reversible adhesion coating presented in this research offers a highly promising solution to this problem. By enabling easy separation of individual layers within multi-layer packaging, it facilitates high-quality recycling of each material, expected to contribute significantly to the realization of a circular economy.

Strategic Significance & Outlook

This reversible adhesion UV-cured coating technology holds broad application potential beyond multi-layer packaging, including electronic device disassembly and repair, automotive component recycling, and medical device reusability. Particularly in modern manufacturing, which demands both high performance and sustainability, this technology offers the potential to reduce environmental impact across the entire material lifecycle and enhance resource efficiency. Further research and commercialization efforts are anticipated to position this as a transformative solution for waste reduction and recycling promotion across numerous industries.

Source: <https://www.european-coatings.com/news/coatings-technologies/reversible-adhesion-in-uv-cured-coatings-via-disulfide-bonds/>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#07 Shin-Etsu Silicones Unveils Innovative Cosmetic Raw Materials, Including Low-Viscosity Oil Thickening Silicone Crosspolymers and Alkyl/Polyglycerin Co-modified Elastomer Gels

Published July 07, 2026 Happi Japan



OVERVIEW

Shin-Etsu Silicones of America announced several new cosmetic raw materials and formulation examples at Suppliers' Day 2026, focusing on enhancing sensorial qualities and texture. Key innovations include a unique silicone gel combining a silicone crosspolymer for low-viscosity oil thickening with naturally derived hydrocarbons, and an alkyl/polyglycerin co-modified silicone elastomer gel offering a light texture with excellent skin affinity. These products address market demand for sophisticated and effective alternatives in cosmetic formulations.

Key Findings

Shin-Etsu Silicones of America unveiled a range of innovative new raw materials and corresponding formulation examples for the cosmetic market at Suppliers' Day 2026. The core of this announcement centered on products designed to significantly improve the sensorial qualities and texture of cosmetic formulations. Noteworthy introductions include a unique silicone gel that combines a silicone crosspolymer for effective thickening of low-viscosity oils with naturally derived hydrocarbons, enhancing product texture and stability.

Technical/Clinical Details

The newly introduced silicone gel demonstrates exceptional thickening efficacy for specific low-viscosity oils, resolving challenges associated with the sensorial feel of traditional thickeners in cosmetic formulations. This gel also incorporates naturally derived hydrocarbons as a base, underscoring a commitment to sustainability. Furthermore, the alkyl/polyglycerin co-modified silicone elastomer gel provides a remarkably light skin feel upon application, minimizing stickiness while achieving superior skin compatibility. These characteristics are designed to meet consumer demands for more comfortable experiences and sophisticated finishes in skincare and makeup products.

Background & Context

The cosmetic industry is witnessing a strong trend where consumers prioritize not only product performance but also a multifaceted array of factors, including sensorial feel, skin kindness, and sustainability. In response, raw material manufacturers are focusing on developing materials that retain the excellent properties of conventional silicones while integrating new functionalities and environmental compatibility. Shin-Etsu Silicones' new product lineup addresses these market demands, offering attractive options for brands striving for more natural and comfortable user experiences.

Strategic Significance & Outlook

These innovative cosmetic raw materials from Shin-Etsu Silicones are expected to play a crucial role in the formulation development of next-generation skincare, makeup, and hair care products. The combination of low-viscosity oil thickening technology and elastomer gels that provide a light texture will drive product diversification and functional enhancement, helping cosmetic brands establish a competitive advantage. Through these new offerings, Shin-Etsu Silicones aims to further strengthen its technological leadership in the market and contribute to the evolution of beauty science.

Source: <https://www.happi.com/breaking-news/shin-etsu-unveils-cosmetic-raw-materials-formulations-at-suppliers-day-2026/>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#08 Dymax Unveils Low-Shrinkage, High-Clarity UV Curable OP Series Optical Adhesives for Precision Optical Bonding and Lens Assembly

Published 2026-07-XX Intertronics UK



OVERVIEW

Dymax has launched its OP series of UV-curable optical adhesives, engineered for high-performance optical bonding, lens assembly, and precision photonics manufacturing. These single-component, optically clear adhesives cure in seconds under UV or visible light, offering low shrinkage, low stress, exceptional optical clarity, and high bond strength. Featuring low outgassing and solvent-free formulations, the OP series meets the stringent demands of high-precision optical applications, enhancing device reliability and manufacturing efficiency.

Key Findings

Dymax has introduced its new OP series of UV-curable optical adhesives, specifically optimized for high-performance optical applications. This series is engineered for optical bonding, lens assembly, and precision photonics manufacturing, featuring optically clear, single-component adhesives that cure in mere seconds under UV or visible light. The key attributes are their exceptionally low shrinkage and stress, coupled with outstanding optical clarity and high bond strength. This product enables precise component positioning and contributes significantly to the long-term reliability of optical devices.

Technical/Clinical Details

The Dymax OP series adhesives utilize a specialized combination of monomers and oligomers to minimize volumetric shrinkage and internal stress during curing. This substantially reduces the risk of distortion in bonded optical components, thereby preserving high-precision optical performance. Their superior optical clarity ensures high transmission across visible light as well as specific UV and IR wavelengths, minimizing any impact on the optical path. Furthermore, the high bond strength facilitates robust joining between dissimilar materials, providing durability capable of withstanding harsh environmental conditions. The adhesives' low outgassing properties and solvent-free formulation make them ideal for cleanroom environments, reducing contamination risks for sensitive optical components.

Background & Context

The optical device market, particularly in areas such as high-resolution displays, advanced driver-assistance systems (ADAS) sensors, medical imaging equipment, and optical communication modules, demands increasingly high-performance and reliable components. In the manufacturing of these devices, precisely bonding optical components and maintaining their performance over extended periods is crucial. Conventional adhesives have often posed challenges such as distortion from cure shrinkage or contamination from outgassing. The Dymax OP series offers a solution to these issues, enhancing design freedom for optical devices and enabling the development of more complex and higher-performing products.

Strategic Significance & Outlook

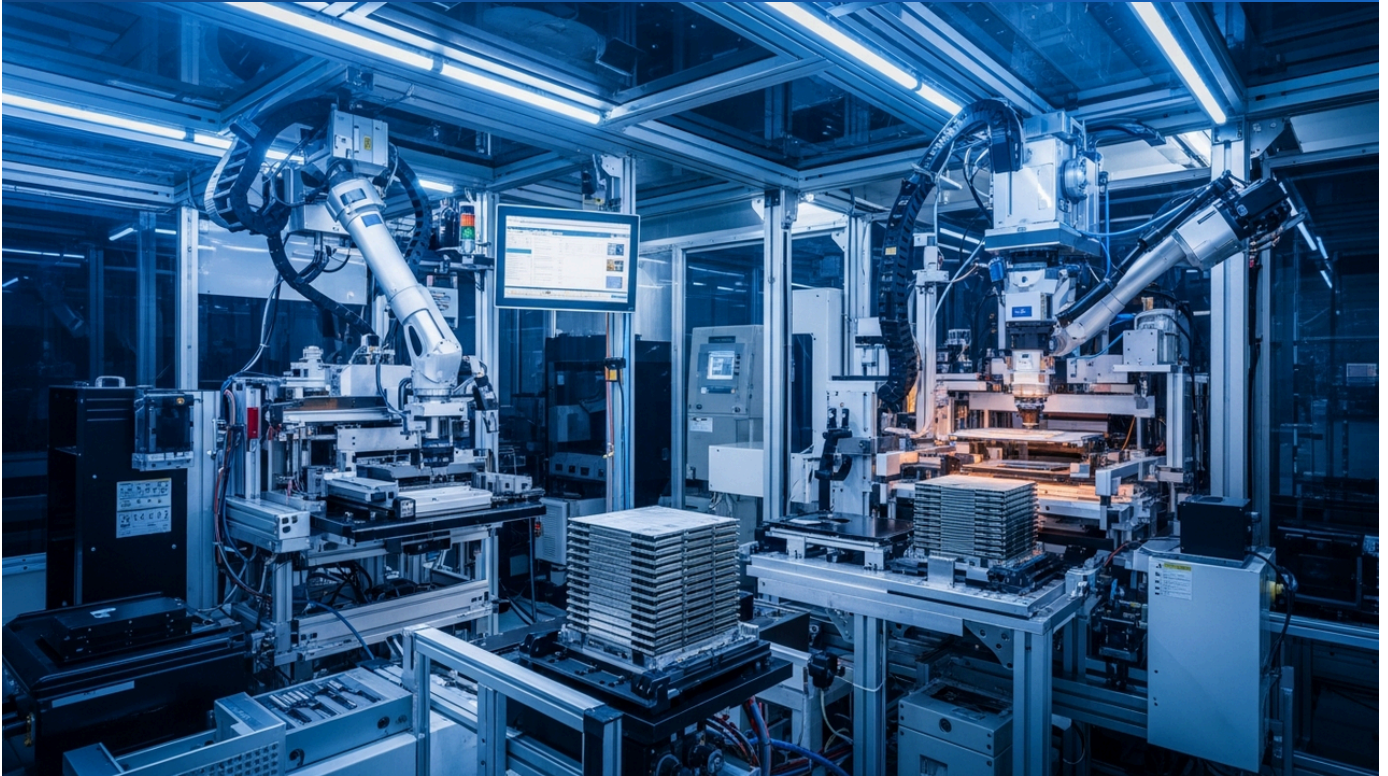
The Dymax OP series of UV-curable optical adhesives is expected to become a critical foundational technology in the rapidly evolving precision optics industry. Its properties of low shrinkage and high clarity offer a significant advantage for next-generation optical devices, especially in applications where even minute distortions are unacceptable, such as ultra-high-definition imaging, AR/VR headsets, and LiDAR sensors. The widespread adoption of this product will contribute substantially to streamlining optical device manufacturing processes and improving product performance and reliability, ultimately delivering more advanced optical technologies to society.

Source: <https://intertronics.co.uk/product/uv-curable-optical-assembly-adhesives/>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#09 Malaysian Consortium Initiates Pilot Line Development for High Bandwidth Memory (HBM) Advanced Packaging, with NSW Automation Providing Precision Adhesive Dispensing

Published July 03, 2026 The Star Malaysia



OVERVIEW

The Malaysia Advanced Packaging Consortium (MAPC) has launched an initiative to develop advanced packaging technologies and a pilot line for High Bandwidth Memory (HBM4) chips. NSW Automation plays a key role, supplying precision equipment for adhesive and underfill material application during chip packaging. This project aims to address the surging demand for AI semiconductors and position Malaysia as a critical hub for advanced packaging, strengthening the domestic supply chain through collaborative efforts.

Key Findings

The Malaysia Advanced Packaging Consortium (MAPC), a collaboration of Malaysian companies, has embarked on an initiative to develop advanced packaging technologies and establish a pilot line for High Bandwidth Memory (HBM4) chips. In this critical project, NSW Automation is playing a pivotal role by providing precision equipment for the application of adhesives and underfill materials during the chip packaging process. This move is part of a broader strategy to meet the escalating demand for AI semiconductors and to position Malaysia as a key player in the global advanced semiconductor packaging landscape.

Technical/Clinical Details

Advanced packaging technologies, such as HBM, involve the high-density integration of multiple semiconductor chips, both vertically and horizontally, to maximize data transfer rates. In these processes, adhesives and underfill materials are indispensable for optimizing electrical interconnections and thermal management between chips. NSW Automation's precision dispensing technology enables the ultra-accurate and uniform application of these materials, which is crucial for determining the reliability and performance of the final package. For next-generation memory like HBM4, increased chip stacking and data bandwidth necessitate thinner adhesive layers and enhanced thermal conductivity, making precise material application technology absolutely critical.

Background & Context

The advent of AI and High-Performance Computing (HPC) demands unprecedented processing power and data transfer speeds from semiconductor chips. As traditional scaling technologies approach their physical limits, advanced packaging techniques like heterogeneous integration and 3D stacking have emerged as new frontiers for semiconductor performance enhancement. Malaysia has long established itself as a significant hub for semiconductor back-end operations (packaging and testing). The consortium's initiative represents a strategic pivot to leverage this strength and move into higher-value advanced packaging markets. This investment underscores Malaysia's strategic importance in the global semiconductor supply chain.

Strategic Significance & Outlook

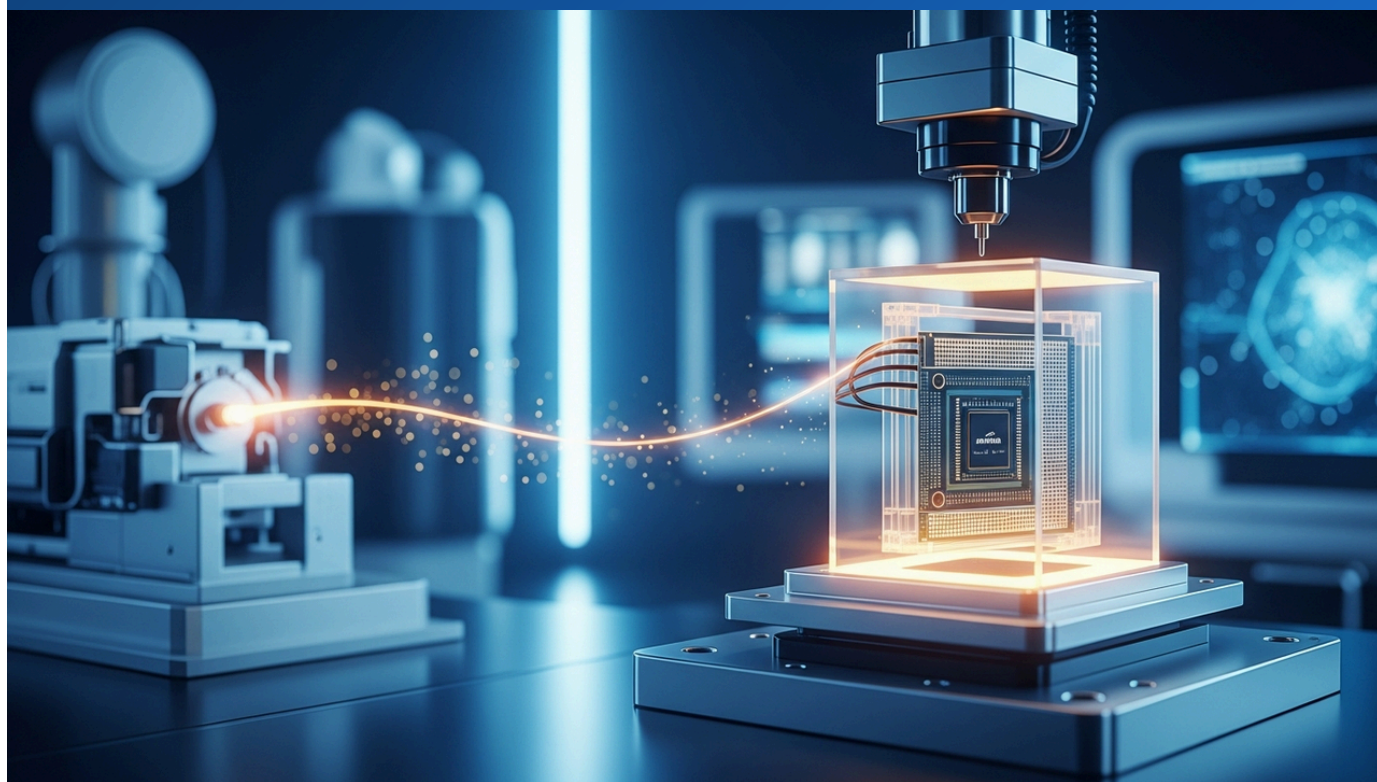
The MAPC's development of a pilot line for HBM4 is crucial for enhancing Malaysia's semiconductor industry competitiveness and capturing growth in the future AI and HPC markets. With domestic companies like NSW Automation contributing advanced material dispensing technology, Malaysia has the potential to evolve from merely a manufacturing base to a center for high-value technology development. The success of this project will solidify the nation's role as a vital player in the global semiconductor ecosystem, contributing to both advanced packaging innovation and production capacity. In the future, this is expected to attract more advanced packaging-related companies to Malaysia, further developing the industrial cluster.

Source: <https://www.thestar.com.my/business/business-news/2026/07/04/the-advanced-packaging-race>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#10 Amkor Technology to Unveil Advanced Power Module Packaging Technologies for the AI Era at SEMI Advanced Packaging Summit 2026

Published July 06, 2026 Amkor Technology South Korea



OVERVIEW

Amkor Technology will participate in the SEMI Advanced Packaging Summit 2026 on July 15, with Shinji Baba, Senior Vice President, presenting on "Advanced Power Module Packaging Technologies." The presentation will detail the latest trends, electrical and thermal challenges, advanced interconnects, cooling architectures, and Amkor's technology roadmap for power device and module packaging in the AI era. This highlights crucial advancements in packaging technologies to meet the escalating demands of high-performance computing and AI applications.

Key Findings

Amkor Technology is set to deliver a keynote presentation at the SEMI Advanced Packaging Summit 2026 on July 15, where Shinji Baba, the company's Senior Vice President, will discuss "Advanced Power Module Packaging Technologies." This presentation will offer Amkor's insights into the cutting-edge trends, associated electrical and thermal challenges, and innovative interconnect and cooling architectures essential for power device and power module packaging in the era of AI and High-Performance Computing (HPC). This information is crucial for enhancing the reliability and efficiency of semiconductors in high-power applications such as data centers and electric vehicles.

Technical/Clinical Details

The rapid evolution of AI and HPC applications demands unprecedented power density and thermal management capabilities from semiconductor devices. Traditional packaging technologies are increasingly struggling to meet these demands. Shinji Baba's presentation is expected to delve into specific technical details, including:

- **Advanced Interconnection Technologies:** New bonding techniques and leadframe designs to handle high current densities while minimizing parasitic resistance and inductance.
- **Efficient Cooling Architectures:** Sophisticated thermal interface materials (TIMs), heatsink designs, and liquid cooling technologies to effectively dissipate the substantial heat generated by devices.
- **Advances in Material Science:** Selection and optimization of encapsulants, substrate materials, and adhesives to maintain stable performance under high-temperature conditions.
- **Integrated Packaging Solutions:** Approaches to consolidate multiple functional blocks into a single package, enabling system miniaturization and performance enhancement.

Background & Context

The SEMI Advanced Packaging Summit 2026, themed "Packaging the Future of AI – From Silicon to Photons," is a premier event addressing the evolution of packaging technologies in the AI era and their broad impact on the semiconductor industry. AI semiconductors generate significant heat due to their intense computational demands, necessitating high-performance thermal dissipation solutions for stable operation. Leading OSAT (Outsourced Semiconductor Assembly and Test) providers like Amkor Technology play a central role in developing advanced packaging technologies to address these challenges. Amkor's technology roadmap serves as a vital indicator of the industry's overall direction.

Strategic Significance & Outlook

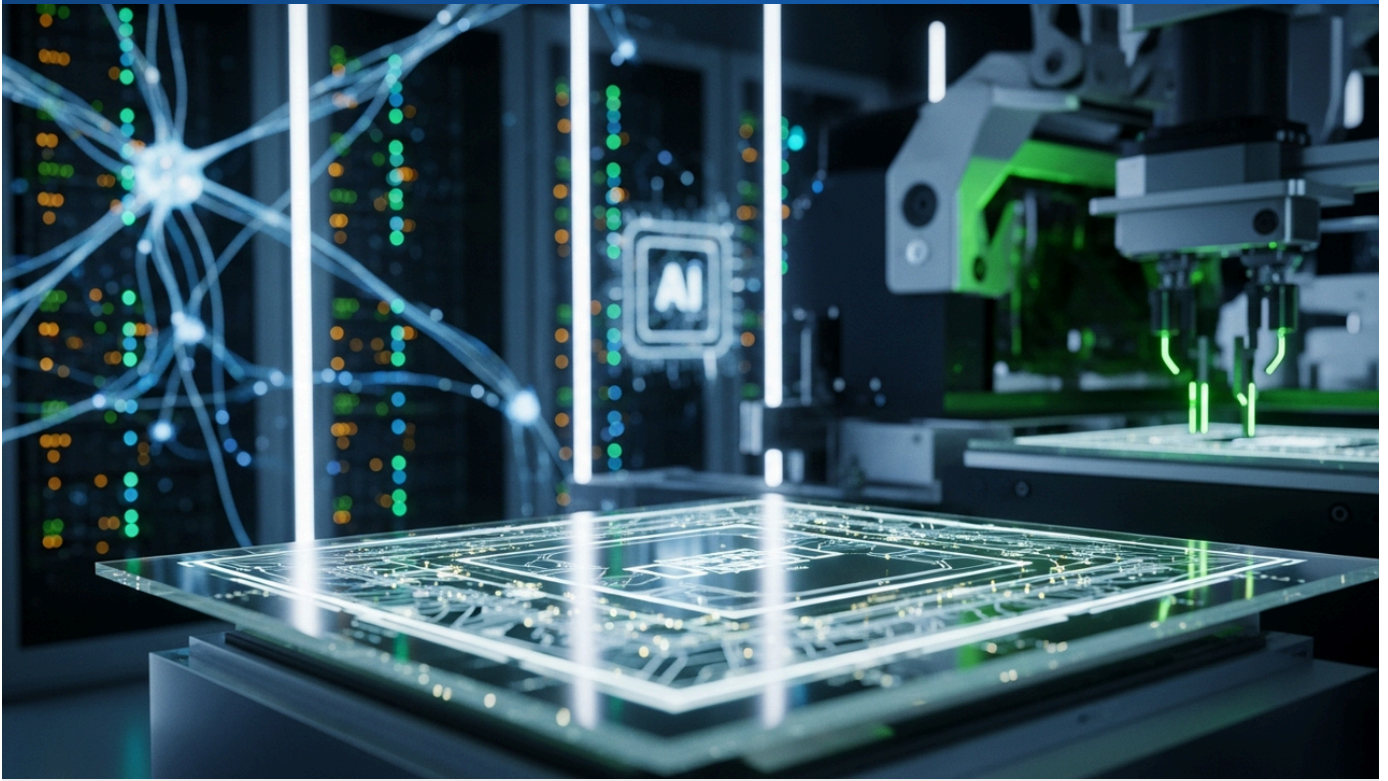
Amkor Technology's presentation will clearly outline the future direction of next-generation power module packaging for AI and HPC applications, providing invaluable insights for semiconductor designers, engineers, and investors to understand upcoming technological trends. The company's advanced approaches are expected to contribute to the realization of more power-efficient and reliable AI systems and electric vehicles, thereby accelerating technological innovation across related industries. This summit presentation marks a significant step towards overcoming industry challenges and driving sustainable technological advancement.

Source: <https://amkor.com/events/advanced-packaging-summit-2026/>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#11 Amkor Technology Presents Large Package Performance Evaluation of Glass Core Substrates for AI and HPC Applications at ECTC 2026

Published July 06, 2026 Amkor Technology South Korea



OVERVIEW

Amkor Technology's JongMin Park presented a technical poster on "Large Package Performance Evaluation of Glass Core Substrates for AI and HPC Applications" at ECTC 2026, a leading forum in electronic packaging. This presentation highlights Amkor's contribution to advanced packaging research and development, particularly new substrate materials designed to meet the demands of AI and High-Performance Computing. Glass core substrates offer superior electrical properties and thermal stability compared to traditional organic substrates, holding the key to next-generation high-density packaging.

Key Findings

Amkor Technology participated in ECTC 2026 (Electronic Components and Technology Conference), a prestigious forum in the electronic packaging industry, held from May 26-29, 2026. During the event, JongMin Park presented a significant technical poster titled "Large Package Performance Evaluation of Glass Core Substrates for AI and HPC Applications." This presentation clearly demonstrates Amkor's active contribution to the research and development of advanced packaging technologies, particularly new substrate materials crucial for supporting next-generation high-performance computing and artificial intelligence applications.

Technical/Clinical Details

The poster presentation highlighted specific achievements in evaluating glass core substrates as a promising alternative to conventional organic substrates, especially as AI and HPC devices demand higher power delivery, lower signal loss, and superior thermal management. Glass core substrates are highly suitable for fine-pitch wiring and high-density integration due to their exceptionally smooth surfaces, excellent dimensional stability, and low coefficient of thermal expansion (CTE). The presentation provided detailed simulation and experimental data concerning the warpage and stress distribution of glass core substrates in large-scale packaging, as well as their electrical performance and thermal conduction properties. This evidence demonstrated that glass core substrates are a key material for maximizing the performance of AI chips and HPC processors.

Background & Context

In the semiconductor industry, as Moore's Law approaches its limits, packaging technology has emerged as a new frontier for performance enhancement. AI and HPC workloads depend heavily not only on chip design but also on advanced packaging materials and structures that enable high-density integration of multiple chips, efficient data transfer, and effective heat dissipation. Glass core substrates have garnered significant attention in high-density, high-speed heterogeneous integration packaging due to their advantages over organic substrates, including lower signal transmission loss and a CTE closer to that of silicon. Amkor's research directly addresses these industry trends.

Strategic Significance & Outlook

Amkor Technology's research on the large package performance evaluation of glass core substrates provides a vital technological foundation for the future development of AI and HPC applications. As this technology matures and moves into mass production, it will enable the realization of more powerful and energy-efficient AI accelerators and HPC systems, thereby accelerating performance improvements in data centers and fostering the creation of new AI services. Amkor's ongoing R&D is expected to reinforce its leadership in advanced packaging and contribute to the overall innovation within the semiconductor ecosystem.

Source: <https://amkor.com/events/events-ectc-2026/>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#12 3M to Announce Q2 2026 Earnings on July 21, Highlighting Diverse Product Portfolio in Industrial, Electronic, and Healthcare Markets

Published July 10, 2026 MarketBeat USA



OVERVIEW

3M has announced its Q2 2026 earnings report scheduled for July 21, 2026, focusing on its extensive product portfolio, including adhesives and tapes across industrial, transportation, electronics, healthcare, and consumer markets. The company leverages its combined expertise in chemical, mechanical, and electronic materials to deliver specialized solutions for these sectors. The earnings report will provide detailed insights into its business strategy and market performance.

Key Findings

3M has announced that its second-quarter 2026 earnings report will be released on July 21, 2026. This financial disclosure is expected to highlight the company's broad product portfolio, encompassing adhesives and tapes, which are deployed across diverse sectors including industrial, transportation, electronics, healthcare, and consumer markets. 3M continues to deliver specialized solutions by integrating its profound expertise in chemical, mechanical, and electronic materials across these market segments.

Technical/Clinical Details

3M's product offerings are underpinned by an innovative fusion of materials science and engineering. For instance, in adhesive technologies, the company provides products tailored for various high-performance applications such as automotive lightweighting, aerospace component bonding, thermal management in electronic devices, and biocompatible adhesives for medical wearables. Its tape products are also meticulously engineered to meet a wide range of needs, from robust industrial fastening solutions to skin-friendly medical tapes for healthcare applications. These products are rigorously developed and managed through continuous R&D and quality control processes to meet the stringent demands of their respective markets.

Background & Context

As a leading global diversified technology company, 3M is renowned for its history of innovation and extensive product lines. The company's operations are intricately linked with various sectors of the economy, responding keenly to global industrial trends and shifts in consumer demand. Notably, the adhesives and sealants market is projected for growth, driven by key factors such as sustainable formulations, the proliferation of electric vehicles, advancements in green building, and the miniaturization of electronics, positioning 3M to potentially benefit from these trends. Historically, 3M has strengthened its adhesive technology portfolio through strategic acquisitions, including ATP Adhesive Systems and Stahl.

Strategic Significance & Outlook

The Q2 2026 earnings report will provide crucial insights into how 3M is navigating the current market environment and executing its growth strategies. The company's revenue growth is likely to be propelled by contributions from both its business segments, including Adhesive Technologies, with positive volume and pricing changes anticipated. Financial strategies, such as the recently completed €1 billion share buyback program, will also influence future stock performance. 3M is expected to continue strengthening its diversified business foundation through ongoing innovation and strategic investments, aiming for long-term growth.

Source: <https://www.marketbeat.com/earnings/reports/2026-7-21-3m-stock/>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#13 Covestro Expands Global Production Capacity with Acquisition of Two HDI Derivative Plants in Thailand and USA

Published July 02, 2026 Plastics Today Germany



OVERVIEW

Covestro has completed the acquisition of two former Vencorex HDI derivative production plants located in Rayong, Thailand, and Freeport, Texas, USA. This strategic acquisition significantly expands Covestro's global production footprint for hexamethylene diisocyanate (HDI) derivatives, substantially enhancing its supply capabilities to customers in the coatings and adhesives industries. The investment demonstrates Covestro's commitment to meeting growing global demand and ensuring stable supply to key markets.

Key Findings

Covestro has announced the successful completion of its acquisition of two former Vencorex HDI (hexamethylene diisocyanate) derivative production facilities. These strategically located plants are in Rayong, Thailand, and Freeport, Texas, USA. This acquisition marks a significant expansion of Covestro's global production capacity for HDI derivatives, specifically enhancing its ability to supply the burgeoning coatings and adhesives industries with crucial raw materials.

Technical/Clinical Details

HDI derivatives are essential intermediates in the manufacturing of high-quality polyurethane coatings and adhesives. These materials are utilized in a wide array of products across automotive, construction, furniture, and electronics sectors, where superior durability, weather resistance, and aesthetic appeal are demanded. By acquiring these facilities, Covestro geographically diversifies and increases its production sites for these vital materials, thereby enhancing the resilience of its global supply chain. This move ensures a more stable supply of raw materials, enabling customers to proceed with their product development and production without interruptions.

Background & Context

The coatings and adhesives markets continue to experience robust growth, driven by demands for sustainability, lightweighting trends, and the increasing need for high-performance materials. Particularly, stricter environmental regulations are accelerating the shift towards low-VOC (Volatile Organic Compound) and waterborne systems, for which HDI derivatives are key components in high-performance, environmentally compliant products. Against the backdrop of these market dynamics, Covestro aims to enhance its ability to support customer innovation and achieve sustainability goals by strengthening its global production network.

Strategic Significance & Outlook

This acquisition represents a critical step for Covestro in further solidifying its position as a global leader in polyurethane materials. The expansion and geographical diversification of its production base will increase its resilience against market fluctuations and improve its responsiveness to regional customer needs. Through this, Covestro aims to accelerate its long-term growth strategy and maintain its competitive advantage as a key supplier in the high-performance coatings and adhesives market. Ultimately, this move is expected to contribute to the improved quality and sustainability of end products in sectors such as automotive, construction, and furniture.

Source: <#>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#14 LyondellBasell and Mondelez Collaborate to Commercialize Marabou Chocolate Packaging Sourced from 75% Recycled Plastic, Utilizing 100% Recycled Content CirculenRevive Polymers

Published July 07, 2026 LyondellBasell - Investors Netherlands



OVERVIEW

LyondellBasell (LYB) and Mondelez International have unveiled an innovative flexible packaging solution for Marabou chocolate bars. The new packaging is made from 75% recycled plastic, leveraging LYB's CirculenRevive polymers with 100% recycled content via an ISCC PLUS-certified mass balance approach. This represents a significant advancement in promoting a circular economy for food packaging, offering a tangible solution to plastic waste and enhancing sustainability for everyday consumer products.

Key Findings

LyondellBasell (LYB) and Mondelez International have jointly developed and launched a groundbreaking flexible packaging solution for the popular Swedish chocolate brand, Marabou chocolate bars. This new packaging is innovatively based on LYB's CirculenRevive polymers, which incorporate 100% recycled content through an ISCC PLUS-certified mass balance approach, resulting in packaging made from 75% recycled plastic overall. This initiative marks a significant milestone in accelerating the transition towards a circular economy within the food packaging sector.

Technical/Clinical Details

CirculenRevive polymers are produced using advanced recycling processes, specifically chemical recycling technologies, which break down post-consumer plastic waste into its original monomers or intermediate feedstocks to produce new, virgin-quality polymers. The ISCC PLUS-certified mass balance approach ensures that recycled content is traceable and allocated throughout the supply chain, even when recycled and fossil-based feedstocks are physically mixed in production systems. This enables Mondelez International to utilize a high proportion of recycled plastic in food-contact packaging applications without compromising product safety or quality standards.

Background & Context

The consumer goods industry, particularly the food packaging sector, faces immense challenges in reducing plastic waste and improving recycling rates. Flexible packaging, while widely used for its functionality and cost-effectiveness, often presents recycling difficulties due to its complex multi-material composition. In Europe, escalating regulations such as the Single-Use Plastics Directive are driving companies to transition towards more sustainable packaging solutions. The collaboration between LYB and Mondelez demonstrates a concrete technological solution and commercial viability in addressing these industry-wide challenges.

Strategic Significance & Outlook

The commercialization of this recycled plastic packaging for Marabou chocolate is expected to serve as a powerful model for consumer goods brands aiming to achieve their plastic waste reduction targets. Innovative materials like LYB's CirculenRevive polymers hold immense potential to significantly enhance packaging sustainability while ensuring food safety and quality. It is anticipated that this approach will be extended to other product lines and brands, accelerating the adoption of packaging materials incorporating recycled content across the food industry. This will further contribute to a more circular economy for plastics.

Source: <https://investors.lyondellbasell.com/news/news-details/2026/From-plastic-waste-to-chocolate-wrappers-LYB-and-Mondelez-collaborate-on-Marabou-flexible-packaging-sourced-from-recycled-plastic/default.aspx>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#15 DELO Unveils PHOTOBOND SJ4192: A High-Performance Multi-Purpose Adhesive Primarily Composed of Bio-Based Components

Published July 02, 2026 DELO Press Release Germany



OVERVIEW

DELO has developed DELO PHOTOBOND SJ4192, a new multi-purpose adhesive primarily formulated from bio-based components, offering a unique combination of performance and sustainability. This adhesive delivers excellent bonding strength to diverse materials like metals, glass, and plastics. Applicable across various industrial sectors including semiconductor packaging, automotive, consumer electronics, and medical technology, it addresses the growing demand for eco-friendly, high-performance adhesive solutions while contributing to resource efficiency.

Key Findings

DELO has developed DELO PHOTOBOND SJ4192, a groundbreaking multi-purpose adhesive primarily composed of bio-based components, successfully integrating exceptional adhesive performance with environmental sustainability. This new adhesive demonstrates robust bonding capabilities across a variety of substrates, including metals, glass, and plastics. It is anticipated to find widespread applications in diverse high-tech sectors such as semiconductor packaging, the automotive industry, consumer electronics, and medical technology, showcasing an advancement in eco-conscious, high-performance adhesive solutions.

Technical/Clinical Details

DELO PHOTOBOND SJ4192 is innovative because its primary constituents are bio-based substances derived from plant sources and other renewable resources. This bio-based formulation contributes to reducing reliance on fossil fuels and helps lower the product's carbon footprint. In terms of adhesive performance, proprietary formulation technology achieves high shear and peel strengths even between dissimilar materials. For instance, it provides excellent durability and reliability in glass-to-metal bonding and precision adhesion of plastic components. Its rapid curing speed also contributes to increased process efficiency, making it suitable for automated production lines where high throughput is required.

Background & Context

The adhesive market is experiencing an accelerated shift towards sustainable materials, driven by increasing environmental awareness and stricter regulations. Many industries are seeking environmentally friendly yet performance-uncompromising alternatives to conventional petrochemical-based adhesives. In sectors such as semiconductors, automotive, and medical, adhesives are critical enablers for miniaturization, lightweighting, and specific functionalities (e.g., thermal management and vibration damping), with their selection significantly impacting the final product's performance and reliability. DELO's PHOTOBOND SJ4192 is poised to address these stringent technical requirements while also contributing to environmental goals.

Strategic Significance & Outlook

The introduction of DELO PHOTOBOND SJ4192 is expected to be a significant driving force in promoting the adoption of bio-based materials within the high-performance adhesive market. This product has the potential to assist companies in achieving their sustainability targets while simultaneously enhancing the quality and competitive edge of their end products. Through this new adhesive, DELO is anticipated to lead environmentally conscious technological innovation, offering greener and more efficient solutions to complex bonding challenges faced by its customers. In the future, increased adoption of bio-based adhesives across more industries is expected to accelerate contributions to a circular economy.

Source: <https://www.delo-adhesives.com/news-and-dates/press-and-media/press-release/>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#16 Sumitomo Bakelite Realigns 2026 CapEx to Asian Fabrication Nodes as 35.7% Operating Profit Expansion Signals Structural De-commoditization in Semiconductor Encapsulation Materials

Published July 07, 2026 HDIN Research Japan



OVERVIEW

Sumitomo Bakelite has announced a strategic realignment of its 2026 capital expenditures, focusing on semiconductor encapsulation material manufacturing sites in Asia. The company reported a significant 35.7% operating profit expansion, indicating a successful structural de-commoditization towards higher-value products despite flat semiconductor material throughput. This investment aims to strengthen technical leadership and meet the increasing demand for advanced packaging materials, particularly for AI and high-performance computing, enhancing competitiveness in targeted high-growth market segments.

Key Findings

Sumitomo Bakelite has announced a strategic realignment and concentration of its 2026 capital expenditure (CapEx) towards its manufacturing facilities located in Asia. This initiative is aimed at further strengthening the company's production capabilities for semiconductor encapsulation materials. Despite flat throughput in semiconductor materials, the company achieved a remarkable 35.7% expansion in operating profit, clearly indicating a successful progression towards structural 'de-commoditization' by shifting towards higher-value products.

Technical/Clinical Details

Sumitomo Bakelite's semiconductor encapsulation materials are critical components for advanced electronic devices used in AI, High-Performance Computing (HPC), and 5G communications. These materials protect semiconductor chips from environmental factors and efficiently dissipate heat, significantly enhancing device reliability and lifespan. The CapEx realignment is particularly focused on modernizing and expanding production lines to accommodate next-generation advanced packaging technologies, such as flip-chip, WLP (Wafer Level Packaging), and SiP (System-in-Package). This will bolster the supply capacity for encapsulation materials with finer pitches, higher thermal conductivity, and lower stress characteristics.

Background & Context

In the semiconductor industry, as physical limits of process miniaturization are approached, the importance of advanced packaging technologies as a new means of performance improvement and cost reduction has grown. AI and HPC applications, in particular, demand packaging with high-density integration and superior heat dissipation, making high-performance encapsulation materials indispensable. Sumitomo Bakelite's improved profitability indicates a successful shift from standard commodity products to differentiated solutions tailored for specific high-performance market segments. Asia, being the epicenter of global semiconductor manufacturing, makes focusing investment in this region a strategic decision to ensure supply chain efficiency and rapid customer response.

Strategic Significance & Outlook

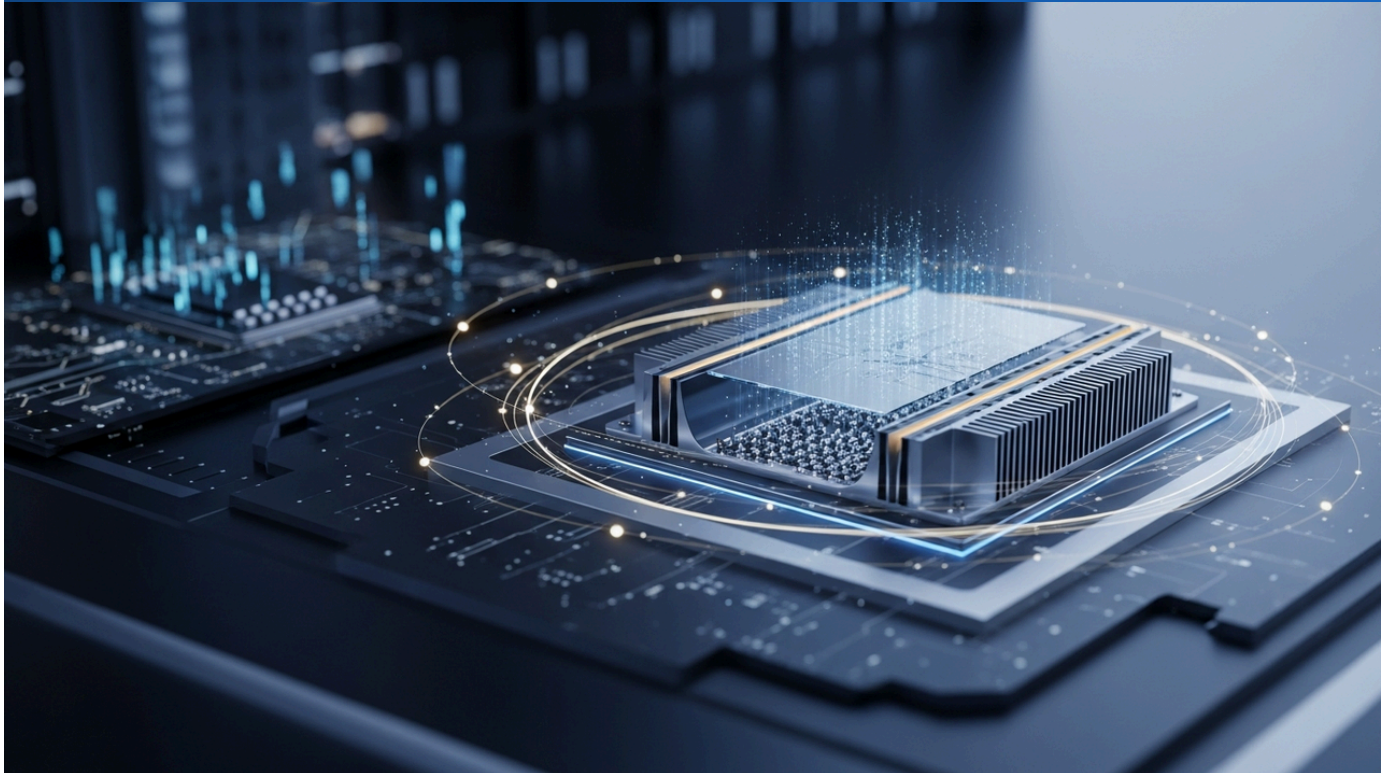
This CapEx realignment and the notable expansion in operating profit lay the groundwork for Sumitomo Bakelite to further solidify its leadership in the advanced semiconductor materials market. The strategic shift towards higher-value products and concentrated investment in Asian manufacturing hubs are crucial steps for the company to maintain global competitiveness and ride the wave of future technological innovations. This is expected to enable the company to expand its market share in growth sectors like AI and HPC, establishing a more profitable business structure. Sumitomo Bakelite is anticipated to contribute to the overall development of the semiconductor ecosystem through continuous technological innovation.

Source: <https://www.hdinresearch.com/news/1655>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#17 Indium Corporation Expert to Present TIM Solutions for AI Thermal Challenges at IMAPS ThermCon, Focusing on Gold-Based Die Attach Preforms for High-Power Laser and RF Applications

Published July 02, 2026 Indium Corporation USA



OVERVIEW

Indium Corporation expert Ryan Mayberry will present research on Thermal Interface Material (TIM) solutions for AI thermal challenges at IMAPS ThermCon. The study focuses on advanced gold-based precision die-attach preforms designed for high-power laser and RF applications, contributing to enhanced device reliability in 5G communications. These sophisticated thermal management solutions are crucial for ensuring sustained performance and stable operation of AI and high-performance computing devices.

Key Findings

Ryan Mayberry, a technical expert from Indium Corporation, will present research findings at IMAPS ThermCon on Thermal Interface Material (TIM) solutions designed to address the critical thermal challenges faced by artificial intelligence (AI) systems. The presentation highlights technological innovations in gold-based precision die-attach preforms optimized for high-power laser and radio frequency (RF) applications, as well as their contribution to enhancing the long-term reliability of devices in 5G communication infrastructure. This underscores advancements in sophisticated thermal management technologies indispensable for the stable operation and performance maintenance of AI and High-Performance Computing (HPC) devices.

Technical/Clinical Details

The TIM solutions to be presented primarily encompass the following technical aspects:

- **Gold-Based Precision Die-Attach Preforms:** High-purity, high-reliability gold alloy bonding materials engineered to minimize thermal resistance between semiconductor chips and heat sinks in high-power devices, ensuring superior thermal conductivity. This technology maintains low chip junction temperatures under severe operating conditions, maximizing device lifespan and performance.
- **High Thermal Conductivity Materials:** Interface materials such as adhesives and greases with excellent thermal conductivity, specifically designed to efficiently dissipate the substantial heat generated by AI processors and RF power amplifiers to the external environment.
- **Low Stress Characteristics:** Material designs that mitigate stresses arising from Coefficient of Thermal Expansion (CTE) mismatches during thermal cycling, thereby enhancing package reliability.

These technologies directly contribute to the stable operation and improved energy efficiency of systems in applications such as data centers, edge AI devices, and 5G base stations.

Background & Context

The rapid advancement of AI and HPC has dramatically increased the power consumption and heat generation of semiconductor devices. Particularly for stacked CPU/GPUs, High Bandwidth Memory (HBM), and high-frequency power amplifiers, effective thermal management has become one of the most critical challenges determining device performance, reliability, and lifespan. TIMs are essential components for bridging the gaps between heat sources and cooling devices, maximizing heat transfer efficiency. Indium Corporation's research addresses these urgent industry challenges by providing specific material solutions, thereby physically supporting the evolution of AI infrastructure.

Strategic Significance & Outlook

Indium Corporation's presentation on TIM solutions will provide critical insights into the future direction of thermal management technologies in the AI and 5G era. Overcoming the thermal constraints of high-power devices is indispensable for the further evolution of AI applications and the widespread deployment of 5G networks. The market introduction of these advanced TIM technologies is expected to accelerate the realization of higher-performance and more reliable AI servers, autonomous driving systems, and next-generation communication equipment. Indium Corporation is poised to contribute to the development of next-generation electronics through continuous innovation in materials science.

Source: <#>

#18 H.B. Fuller Prioritizes High-Value Markets Following Portfolio Restructuring and Flooring Business Divestiture, Achieving 5.8% Revenue Growth and Improved Margins

Published July 09, 2026 Zacks.com USA



OVERVIEW

H.B. Fuller has completed a strategic portfolio restructuring and the divestiture of its flooring business, accelerating its focus on high-value specialty adhesive markets. In its latest second quarter, the company reported a 5.8% increase in revenue and achieved significant margin improvement, despite lower volumes, driven by product mix optimization, restructuring savings, and successful pricing strategies. This move aims to strengthen its financial performance and market competitiveness by concentrating on more profitable segments. H.B. Fuller intends to pursue sustainable growth through ongoing portfolio optimization.

Key Findings

H.B. Fuller has successfully completed a strategic portfolio restructuring and the divestiture of its flooring business, thereby accelerating its focus on higher-value specialty adhesive markets. In its most recent second quarter, the company reported a 5.8% increase in revenue year-over-year. Concurrently, through optimizing its product mix, achieving cost savings from restructuring, and implementing effective pricing strategies, H.B. Fuller achieved substantial margin improvement despite a decrease in sales volume. This outcome indicates the success of its strategic shift towards high-growth, high-profitability segments.

Technical/Clinical Details

H.B. Fuller delivers high-performance solutions across various specialty adhesive sectors, including automotive, medical, electronics, and packaging. The portfolio restructuring specifically aims to bolster investment in R&D and product innovation within these high-value markets. The company's adhesives are engineered to meet specific customer needs, such as performance under extreme conditions, compatibility with particular substrates, and sustainability requirements (e.g., low VOCs, bio-based components). By divesting the flooring business, H.B. Fuller can concentrate resources on more strategic operations, thereby further strengthening its technological leadership in these crucial areas.

Background & Context

The broader adhesives market continues to grow, driven by increasing demand across diverse industries such as construction, automotive, packaging, electronics, and healthcare. However, volatile input costs, tightening chemical regulations, and emerging demands from specific applications (e.g., thermal management in EV batteries, miniaturization in electronics) are compelling adhesive manufacturers to optimize their portfolios and move towards higher-value offerings. H.B. Fuller's actions align with these industry trends, seeking to escape commodity competition and establish dominance in specialty markets grounded in technology and innovation. Key players like Arkema, Sika, and Dow are also investing in advanced formulation technologies to comply with sustainability regulations, a strategy mirrored by H.B. Fuller.

Strategic Significance & Outlook

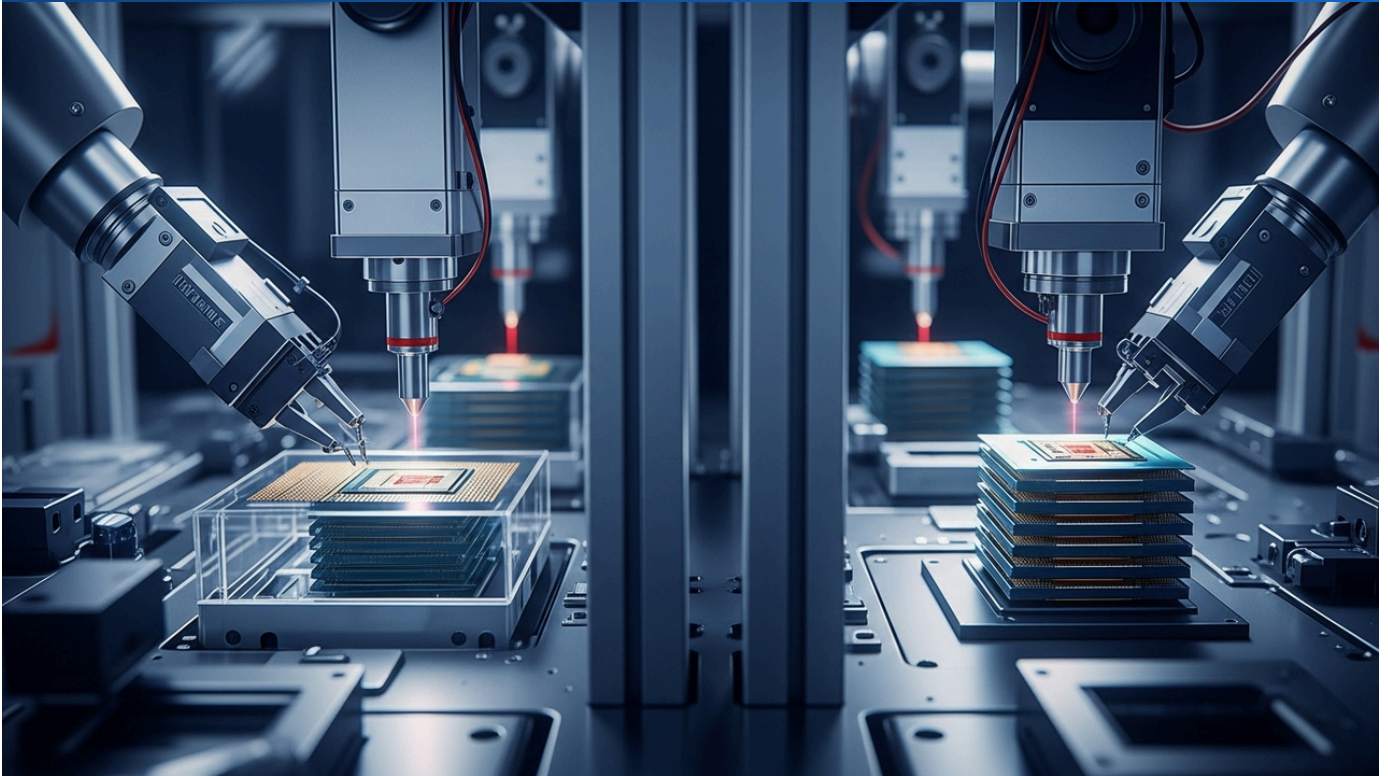
H.B. Fuller's portfolio restructuring and focus on high-value markets lay a strong foundation for long-term profitability and sustainable growth. The improved margins suggest the company will continue to pursue similar strategies and potentially further enhance its technology portfolio through selective M&A. By establishing leadership in the specialty adhesives market, H.B. Fuller is expected to continue providing innovative solutions and playing a critical role in solving customers' most challenging bonding issues. This will enable the company to maintain stable growth and high profitability in the highly competitive adhesives market.

Source: <https://www.zacks.com/stock/news/2950688/hb-fuller-stock-outlook-hinges-on-margins-mix-and-ma>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#19 TSMC Accelerates Backend Ecosystem Reorganization, Reshaping Semiconductor Competitive Landscape as Advanced Packaging Breaks Process Shrinkage Limits

Published July 09, 2026 The Economy Taiwan



OVERVIEW

Advanced packaging technology is rapidly emerging as a new competitive domain in the semiconductor industry, gaining importance as traditional process shrinkage approaches its technical limits. Packaging techniques that integrate multiple chips at high density to boost overall performance are becoming critical determinants of competitiveness. TSMC is proactively responding to this trend by significantly enhancing its investments in advanced packaging, leading the reorganization of the backend ecosystem. This blurs the lines between semiconductor design and manufacturing, creating new opportunities for value creation.

Key Findings

Advanced packaging technology is rapidly emerging as the new main battlefield for competition within the semiconductor industry. As traditional process shrinkage technologies confront their physical limitations, packaging methods that integrate multiple chips at high density to dramatically improve overall system performance are becoming the most critical factors determining the competitiveness of semiconductor manufacturers. TSMC, a global foundry leader, is proactively responding to this wave of technological innovation by significantly strengthening its investments in advanced packaging and leading the reorganization of the backend ecosystem.

Technical/Clinical Details

Advanced packaging technologies encompass a wide range of approaches, including 2.5D and 3D integration, fan-out wafer-level packaging (FOWLP), and system-in-package (SiP) solutions. These technologies involve placing chips with different functionalities (e.g., CPU, GPU, memory) in close proximity and connecting them with short interconnections, thereby accelerating data transfer speeds and reducing power consumption. For instance, TSMC's key advanced packaging technologies, such as CoWoS (Chip-on-Wafer-on-Substrate) and InFO (Integrated Fan-Out), maximize chip-to-chip connection density and efficiency through interposers and RDLs (re-distribution layers). In these processes, precision die attach, underfill, mold compounds, and thermal interface materials (TIMs) are indispensable, determining the overall performance and reliability of the package.

Background & Context

For many years, the semiconductor industry advanced through miniaturization according to Moore's Law, but this pace has slowed due to physical laws and manufacturing cost constraints. Instead, 'system-level performance improvement' through packaging technology has gained prominence. Emerging applications like AI, High-Performance Computing (HPC), 5G, and autonomous driving demand not only high performance at the chip level but also packaging technologies that efficiently integrate multiple chips. Large-scale investments in backend processes by foundries like TSMC blur the traditional boundaries between front-end and back-end, forming new business models that optimize everything from design to manufacturing and packaging.

Strategic Significance & Outlook

TSMC's leadership in advanced packaging investments and the reorganization of the backend ecosystem will significantly impact the entire semiconductor industry supply chain. The development and adoption of high-performance packaging materials (e.g., 2.5D and 3D Cu-Cu hybrid bonding materials, epoxy molding compounds, molding underfills, and glass panel-based packaging technologies) will accelerate, creating new business opportunities for related material and equipment manufacturers. This movement will drive the next breakthrough in semiconductor technology, contributing to the realization of more innovative and higher-performing electronic devices, while fundamentally transforming the competitive structure of the semiconductor industry.

Source: <https://economy.ac/news/2026/07/202607289515>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#20 Micro-CT Emerges as Key Non-Destructive 3D Analysis Approach for Semiconductor Package Warpage, Addressing Critical Reliability Challenges

Published July 09, 2026 AZoM UK

TECHNOLOGY
NEWS

Micro-CT as effective non-destructive 3D analysis approach for semiconductor warpage problems



Published July 9, 2026 | United Kingdom

AZoM | United Kingdom

OVERVIEW

Semiconductor package warpage is a critical issue significantly compromising package performance and reliability. This deformation stems from Coefficient of Thermal Expansion mismatches among package materials (substrate, silicon, molding compound) and thermal/chemical shrinkage of encapsulants. Micro-CT (X-ray microtomography) is gaining significant attention as a highly effective non-destructive 3D analysis approach for this complex phenomenon, aiding in package process optimization and reliability improvement. Accurate 3D data is crucial for advancing design and material selection.

Key Findings

Semiconductor package warpage has emerged as a critical issue that significantly degrades device performance and reliability, with its impact escalating in modern semiconductor manufacturing characterized by miniaturization and high-density integration. This complex deformation is primarily attributed to Coefficient of Thermal Expansion (CTE) mismatches among the various constituent materials within the package (e.g., substrate, silicon chip, molding compound) and thermal/chemical shrinkage of encapsulation materials during curing. In response to this challenge, micro-CT (X-ray micro-tomography) is gaining substantial attention as a highly effective approach for non-destructive, high-resolution, three-dimensional analysis of warpage phenomena within the industry.

Technical/Clinical Details

Micro-CT utilizes X-rays to penetrate a sample, capturing multiple angular projections which are then computer-processed to reconstruct the sample's internal structure in 3D. This technique allows for detailed visualization of minute deformations and stress distributions within each component of the package—including adhesive layers, underfill materials, molding compounds, substrates, and silicon chips—without destroying the sample. Critically, it enables precise evaluation, from millimeter to micrometer scales, of how CTE mismatches and cure shrinkage, which are root causes of warpage, affect the overall package structure. This provides invaluable data for comparing simulation results with actual warpage behavior during the design phase, aiding in the optimization of material selection and process conditions.

Background & Context

As semiconductor devices become more powerful and miniaturized, packaging technologies grow increasingly complex. In advanced packaging techniques such as flip-chip, SiP (System-in-Package), and TSV (Through-Silicon Via), the high interconnection density between the chip and substrate means even slight warpage can lead to electrical connection failures or degradation in thermal performance. Thermal stresses arising from the stacking of dissimilar materials are an unavoidable problem, and accurately understanding and controlling them is essential for ensuring package reliability. Non-destructive 3D analysis via micro-CT offers deep insights previously unattainable with conventional 2D measurements or destructive testing, contributing to rapid problem-solving and shorter development cycles.

Strategic Significance & Outlook

Micro-CT technology holds the potential to become the de facto standard for semiconductor package warpage analysis. Its application will enable semiconductor manufacturers to rapidly develop more robust and reliable package designs and optimize manufacturing processes. Furthermore, its role will expand in evaluating new material introductions and quality control. In the future, applications in automated defect detection and predictive maintenance, combined with AI, are anticipated to further enhance semiconductor manufacturing efficiency and reliability. This advancement will ultimately lead to the provision of higher-performance and more durable electronic devices for consumers.

Source: <https://www.azom.com/article.aspx?ArticleID=25328>

#21 Henkel Reports Strong Q1 2026 Organic Sales Growth of 1.7%, Driven by Adhesive Technologies Sector, Completes €1 Billion Share Buyback

Published July 07, 2026 Henkel Germany



OVERVIEW

Henkel reported robust financial results for Q1 2026, achieving group sales of approximately €5 billion and a strong organic sales growth rate of 1.7%. This growth was significantly driven by both business units, particularly the Adhesive Technologies sector, which contributed positive volume and pricing. Additionally, the company completed its €1 billion share buyback program by the end of March, demonstrating its commitment to shareholder value. The strong performance of Adhesive Technologies reflects Henkel's innovation and market competitiveness across diverse industrial segments.

Key Findings

Henkel reported robust financial results for the first quarter of 2026, with group sales reaching approximately €5 billion. Notably, the company achieved a strong organic sales growth rate of 1.7%, which was powerfully driven by both of its business segments, especially the Adhesive Technologies sector. Both segments contributed with positive volume and pricing developments, signaling the success of the company's growth strategy. Furthermore, Henkel completed its €1 billion share buyback program by the end of March, emphasizing its commitment to shareholder returns and strong financial health.

Technical/Clinical Details

The Adhesive Technologies business unit provides high-performance adhesives, sealants, and functional coatings across a wide range of industrial sectors, including automotive, electronics, packaging, and construction. The growth in this segment is supported by the development of new products that address customer innovation needs and a strategic shift towards high-value solutions. For example, cutting-edge technologies such as sustainable adhesive formulations, battery bonding solutions for electric vehicles, and high-performance semiconductor packaging materials have been introduced to the market. These products help solve specific customer challenges like lightweighting, enhancing durability, and improving production efficiency, thereby contributing to the superior performance of final products.

Background & Context

Despite the global economy facing challenges such as volatile input costs, supply chain disruptions, and rapid technological shifts, Henkel has demonstrated a strong business foundation and strategic direction. The adhesives market continues to grow, propelled by several key trends including the demand for sustainable formulations, the proliferation of electric vehicles (EVs), advancements in green building, and the miniaturization of electronics. Henkel has strategically strengthened its adhesive technology portfolio through acquisitions like ATP Adhesive Systems and Stahl, enhancing its market competitiveness. The latest performance is a culmination of these strategic investments and adaptive capabilities in the market.

Strategic Significance & Outlook

The strong organic growth in Q1 2026 indicates that Henkel is well on track to achieve its full-year growth targets. The continued contribution from the Adhesive Technologies segment will play a central role in the company's future growth strategy. A focus on sustainable innovation and investments in high-growth market segments are key for Henkel to maintain long-term profitability and strengthen its market leadership. The completed share buyback program signals confidence to investors and contributes to future financial flexibility. Henkel is expected to continue creating sustainable value through technological innovation while adapting to evolving market needs.

Source: <https://www.henkel.com/investors-and-analysts>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#23 Strategic Packaging Insights Forecasts De-seamable Adhesives Market to Reach \$3.12 Billion by 2034, Driven by Demand for Sustainable Bonding Solutions

Published July 09, 2026 openPR.com (Strategic Packaging Insights Inc.) USA



OVERVIEW

This article is an overview of a market research report published by Strategic Packaging Insights Inc. The global de-seamable adhesives market is projected to grow from an estimated \$156 million in 2025 to \$3.12 billion by 2034, with a Compound Annual Growth Rate (CAGR) of 9.5% from 2026 to 2034. This robust growth is driven by increasing demand for sustainable, recyclable, high-performance adhesive technologies in packaging, medical, and industrial applications. UV-cured adhesives are seeing accelerated adoption in medical and industrial sectors due to their precision, rapid curing, and environmental compatibility.

IN DEPTH

This article provides an overview of a market research report published by Strategic Packaging Insights Inc.

Report Overview

This report focuses on the global market for de-seamable (separable) adhesives, analyzing its trends, growth drivers, and future forecasts. The market under study covers a wide range of applications where sustainable, recyclable, and high-performance adhesive technologies are demanded, including packaging, medical, and industrial sectors. The geographical scope is global, evaluating growth opportunities across key regional markets.

Key Findings

- The global de-seamable adhesives market is projected to reach \$3.12 billion by 2034, up from an estimated \$156 million in 2025.
- A Compound Annual Growth Rate (CAGR) of 9.5% is anticipated for the forecast period from 2026 to 2034.
- Market growth is propelled by increasing demand for sustainable, recyclable, and high-performance adhesive technologies.
- Technological developments are concentrated on recyclability, clean-release performance (no residue upon separation), and adhesive strength, with manufacturers implementing systems that allow complete separation during recycling processes.
- The report highlights a significant increase in the adoption of UV-cured adhesives in medical and industrial applications due to their advantages in terms of precision, rapid curing time, and environmental compatibility.
- Key players such as H.B. Fuller, Arkema, Sika, and Dow are investing in advanced formulation technologies to meet tightening environmental regulations.

About the Publisher

Strategic Packaging Insights Inc. is a company specializing in market research and strategic insights for the packaging industry. The company possesses deep expertise in sustainability, technological innovation, and market trends, providing information that helps clients establish a competitive advantage.

Source: <https://www.openpr.com/news/4572624/de-seamable-adhesives-market-worth-3-12-billion-by-2034-driven>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#26 openPR Forecasts Aerospace Adhesive and Sealants Market to Rapidly Grow to \$2.09 Billion by 2033

Published July 08, 2026 openPR.com India



OVERVIEW

This article is an overview of a market research report provided by openPR.com. The global aerospace adhesive and sealants market is projected to reach \$2.09 billion by 2033, up from \$1.26 billion in 2025, growing at a Compound Annual Growth Rate (CAGR) of 6.4% from 2026 to 2033. This rapid growth is strongly driven by increasing aircraft production and the expanding demand for lightweight, high-performance bonding materials in aerospace. Technological innovations and sustainability initiatives within the aerospace industry are expected to further invigorate the adhesive and sealants market.

This article provides an overview of a market research report provided by openPR.com.

Report Overview

This report focuses on the trends and future forecasts for the global aerospace adhesive and sealants market. The market under study encompasses a wide range of bonding and sealing solutions for commercial aircraft, military aircraft, helicopters, spacecraft, and other aerospace applications. It identifies increasing aircraft production and the expanding demand for lightweight, high-performance bonding materials as key growth drivers, with a global geographical scope.

Key Findings

- The global aerospace adhesive and sealants market is projected to reach \$2.09 billion by 2033, up from an estimated \$1.26 billion in 2025.
- A Compound Annual Growth Rate (CAGR) of 6.4% is anticipated for the forecast period from 2026 to 2033.
- Key drivers for market growth include:
 - **Increase in Aircraft Production:** Global air travel demand recovery and a rise in aircraft ownership in emerging economies are leading to increased production of commercial and military aircraft.
 - **Growing Demand for Lightweight, High-Performance Bonding Materials:** To improve fuel efficiency and meet emission reduction targets, aircraft manufacturers are increasing the use of composite materials, which necessitates strong, lightweight adhesive and sealant materials.
 - **Technological Innovations in the Aerospace Industry:** Advancements in materials science and manufacturing technologies are enabling the development of products with superior bonding performance and durability.
- The report also emphasizes the importance of stringent safety requirements and long-life performance in the aerospace sector.

About the Publisher

openPR.com is an online service that provides a platform for companies to distribute press releases. It plays a role in disseminating news and overviews of market research reports globally across various industries.

Source: <https://www.openpr.com/news/4571524/aerospace-adhesive-and-sealants-market-surges-as-aircraft>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#27 openPR Forecasts Dental Adhesives and Sealants Market to Reach \$10.44 Billion by 2030, Driven by 10.0% CAGR

Published July 06, 2026 openPR.com India



OVERVIEW

This article is an overview of a market research report provided by openPR.com. The global dental adhesives and sealants market is projected to reach \$10.44 billion by 2030, growing at a Compound Annual Growth Rate (CAGR) of 10.0% from 2026 to 2030. This growth is driven by the increasing adoption of universal dental adhesives, rising demand for minimally invasive restorative materials, expanding use of bioactive sealants, and the embrace of advanced bonding technologies. The aging global population and heightened oral hygiene awareness are also key market expansion factors.

IN DEPTH

This article provides an overview of a market research report provided by openPR.com.

Report Overview

This report focuses on the global dental adhesives and sealants market, offering a detailed analysis of industry trends, growth drivers, and future outlook. The market under study includes various types of adhesives, sealants, and related materials, covering a wide range of dental applications such as caries prevention, restorative dentistry, orthodontics, and prosthetics. The geographical scope is global, evaluating market characteristics and growth opportunities in each region.

Key Findings

- The global dental adhesives and sealants market is projected to reach \$10.44 billion by 2030.
- A Compound Annual Growth Rate (CAGR) of 10.0% is anticipated for the forecast period from 2026 to 2030.
- Key drivers for market growth include:
 - **Increased Adoption of Universal Dental Adhesives:** The growing use of universal adhesives that simplify procedures and offer efficiency across multiple bonding protocols.
 - **Rising Demand for Minimally Invasive Restorative Materials:** Increased interest in restorative treatments that preserve maximum tooth structure, leading to higher demand for suitable bonding materials.
 - **Expanding Use of Bioactive Sealants:** Growing attention on sealants containing bioactive components that enhance therapeutic effects, such as promoting tooth remineralization.
 - **Embrace of Advanced Bonding Technologies:** Continuous introduction of new bonding technologies that improve adhesive strength, durability, and aesthetics.
- The report also identifies the increasing dental treatment needs of an aging global population and heightened oral hygiene awareness worldwide as major factors contributing to market expansion.

About the Publisher

openPR.com is an online service that provides a platform for companies to distribute press releases. It plays a role in publicizing news and overviews of market research reports globally across various industries.

Source: <https://www.openpr.com/news/4569570/dental-adhesives-and-sealants-market-report-examines-industry>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#28 IDTechEx Analyzes Materials Shaping the Future of Advanced Semiconductor Packaging, Including 2.5D/3D Cu-Cu Hybrid Bonding and Glass Panel-Based Technologies

Published July 07, 2026 IDTechEx UK



OVERVIEW

This article is an overview of a market research report published by IDTechEx. IDTechEx's latest report focuses on materials shaping the future of advanced semiconductor packaging, including 2.5D and 3D Cu-Cu hybrid bonding materials, epoxy molding compounds (EMC), molding underfills (MUF), and glass panel-based advanced semiconductor packaging. The report analyzes technological trends, manufacturing processes, and key challenges within these materials, providing strategic insights for crucial industry players. This information is essential for the semiconductor industry's pursuit of high-density integration and enhanced performance.

This article provides an overview of a market research report published by IDTechEx.

Report Overview

IDTechEx's latest report, titled "Materials Shaping the Future of Advanced Semiconductor Packaging," focuses on the key materials underpinning future advanced semiconductor packaging technologies. The report provides a detailed analysis of technological trends, manufacturing processes, and market challenges for major material groups such as 2.5D and 3D Cu-Cu hybrid bonding materials, epoxy molding compounds (EMC), molding underfills (MUF), and glass panel-based advanced semiconductor packaging. The scope of the study is global, comprehensively covering key innovations in the semiconductor industry.

Key Findings

- The report specifically highlights the following advanced semiconductor packaging materials:
 - **2.5D and 3D Cu-Cu Hybrid Bonding Materials:** Materials essential for direct copper-to-copper bonding technology between chips, enabling high-density integration and high-speed signal transmission.
 - **Epoxy Molding Compounds (EMC):** Encapsulation materials used to protect semiconductor chips from physical damage and environmental stress.
 - **Molding Underfills (MUF):** Materials designed to mitigate stresses caused by Coefficient of Thermal Expansion (CTE) mismatches between the chip and substrate, improving connection reliability.
 - **Glass Panel-Based Advanced Semiconductor Packaging:** Next-generation substrate technology offering high dimensional stability, excellent electrical properties, and the potential for larger form factors at lower costs.
- The report deeply explores technological trends, manufacturing process challenges (e.g., warpage during curing, material compatibility), and future development directions for these materials.
- It emphasizes the industry consensus that advanced packaging is the next growth driver as miniaturization technologies for semiconductor performance improvement approach their limits.

About the Publisher

IDTechEx is a global company specializing in research and consulting on emerging technologies. The company provides market analysis, technology roadmaps, and business insights across various high-tech industries, including electronics, energy, medical, and mobility, assisting clients in strategic decision-making.

Source: <#>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#29 openPR Forecasts Instant Adhesive Market to Grow to \$4.62 Billion by 2033, Driven by 6.8% CAGR

Published July 08, 2026 openPR.com India



OVERVIEW

This article is an overview of a market research report provided by openPR.com. The global instant adhesive market is projected to reach \$4.62 billion by 2033, up from \$2.87 billion in 2025, growing at a Compound Annual Growth Rate (CAGR) of 6.8% from 2026 to 2033. Increased electronics production, expanding applications in electric vehicle (EV) manufacturing, and the growth of medical device manufacturing are identified as key drivers for this market expansion. Instant adhesives, characterized by rapid bonding and high bond strength, contribute to manufacturing process efficiency.

IN DEPTH

This article provides an overview of a market research report provided by openPR.com.

Report Overview

This report focuses on the global instant adhesive market, offering a detailed analysis of its trends, growth drivers, and future outlook. The market under study includes various types of instant adhesives, primarily cyanoacrylate-based, covering a wide range of end-use industries such as electronics, EV manufacturing, medical devices, consumer goods, and industrial maintenance. The geographical scope is global, evaluating growth opportunities and the competitive landscape in key regional markets.

Key Findings

- The global instant adhesive market is projected to reach \$4.62 billion by 2033, up from an estimated \$2.87 billion in 2025.
- A Compound Annual Growth Rate (CAGR) of 6.8% is anticipated for the forecast period from 2026 to 2033.
- Key drivers for market growth include:
 - **Increased Electronics Production:** Rapid bonding is essential for assembling small and complex electronic components such as smartphones, wearable devices, and IoT devices.
 - **Expanding Applications in EV Manufacturing:** There is growing demand for bonding solutions requiring high reliability and efficiency in the assembly of electric vehicle battery packs, motors, and sensors.
 - **Growth in Medical Device Manufacturing:** Biocompatible instant adhesives are used for the precise assembly of medical wearables, diagnostic equipment, and disposable medical products.
- The report emphasizes that rapid bonding times and high bond strengths are crucial advantages that facilitate manufacturing process efficiency and automation.

About the Publisher

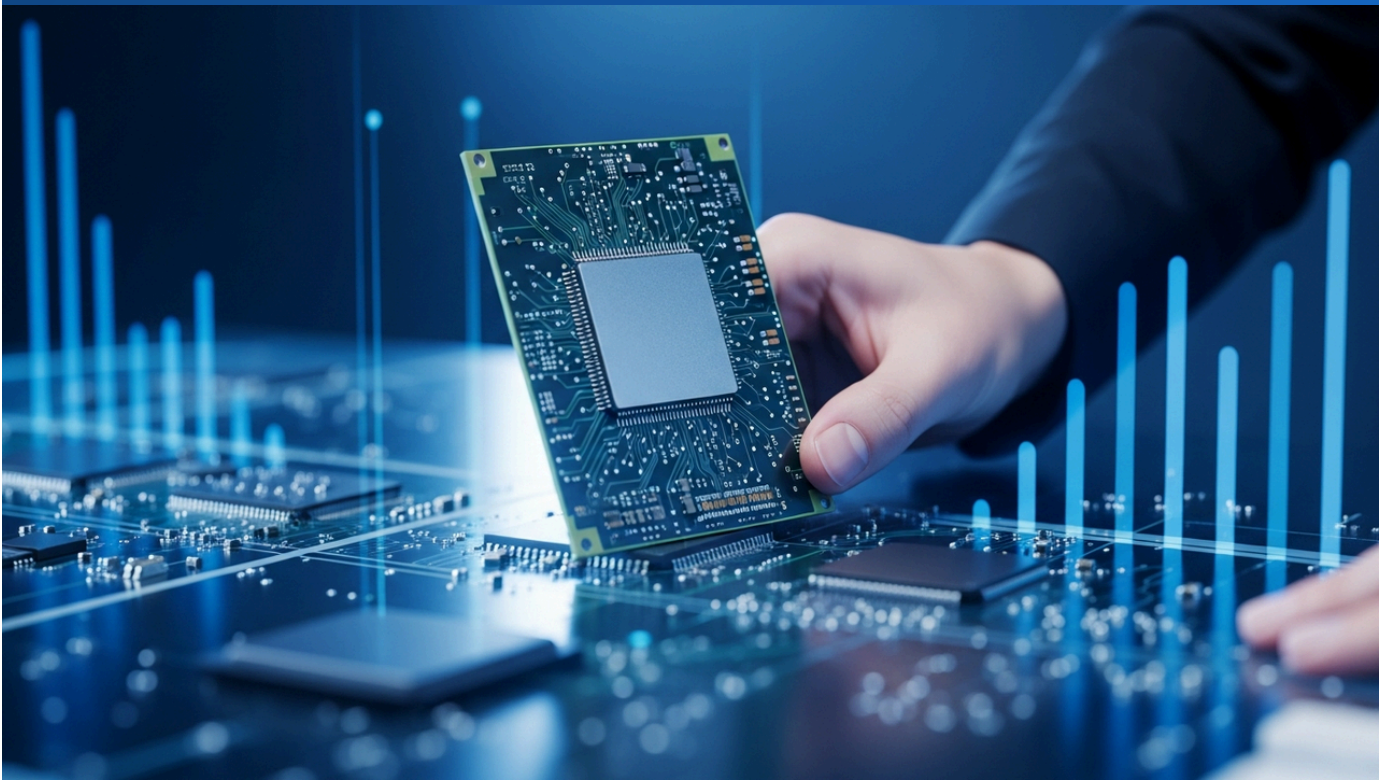
openPR.com is an online service that provides a platform for companies to distribute press releases. It plays a role in publicizing news and overviews of market research reports globally across various industries.

Source: <https://www.openpr.com/news/4571595/instant-adhesive-market-business-outlook-2026-2033-market>

Collected: July 10, 2026 | Automated Research System (Gemini API)

#30 Data Insights Reports Forecasts Electronic Circuit Board Underfill Market Growth Driven by Advanced Semiconductor Packaging Demand, Emphasizing Nano-Fillers for Enhanced Thermal Conductivity and Low-Viscosity for Sub-80 μm Bump Pitch

Published July 08, 2026 Data Insights Reports India



OVERVIEW

This article is an overview of a market research report provided by Data Insights Reports. The global electronic circuit board underfill market is projected for significant growth, driven by increasing adoption of advanced semiconductor packaging, particularly in automotive electronics and high-power chips. Early 2026 research focused on integrating nano-fillers into underfill formulations to boost thermal conductivity and reduce CTE mismatch between chip and substrate. This is critical for high-power density applications, with manufacturers developing low-viscosity underfill materials for sub-80 μm bump pitches.

IN DEPTH

This article provides an overview of a market research report provided by Data Insights Reports.

Report Overview

This report focuses on the trends and future forecasts for the global electronic circuit board underfill market. The market under study encompasses various types of underfill materials used in advanced semiconductor packaging technologies, including flip-chip, BGA (Ball Grid Array), and CSP (Chip Scale Package). Increased adoption in automotive electronics and high-power chips is identified as a primary driver for market growth, with a global geographical scope.

Key Findings

- The global electronic circuit board underfill market is projected for significant growth, strongly driven by the increasing adoption of advanced semiconductor packaging, particularly in automotive electronics and high-power chip applications.
- Key research and development trends observed in early 2026 include:
 - **Integration of Nano-Fillers:** Active research is underway to incorporate nano-fillers into underfill formulations to enhance thermal conductivity and reduce the Coefficient of Thermal Expansion (CTE) mismatch between the chip and the substrate.
 - **Development of Low-Viscosity Underfill Materials:** Manufacturers are developing low-viscosity underfill materials capable of uniformly filling narrow gaps, crucial for accommodating increasingly fine bump pitches (below 80 μm).
- These technological advancements are highlighted as indispensable for maintaining device reliability and performance in high-power density applications.
- Underfill materials also play a critical role in alleviating mechanical stress between the chip and the substrate, thereby improving durability against drop shocks and thermal cycling.

About the Publisher

Data Insights Reports is a global company that provides market research, data analysis, and business insights across various industry sectors. The company assists clients in their decision-making processes through detailed market data and strategic analysis.

Source: <https://www.datainsightsreports.com/reports/global-electronic-circuit-board-underfill-material-market-22880>

Collected: July 10, 2026 | Automated Research System (Gemini API)