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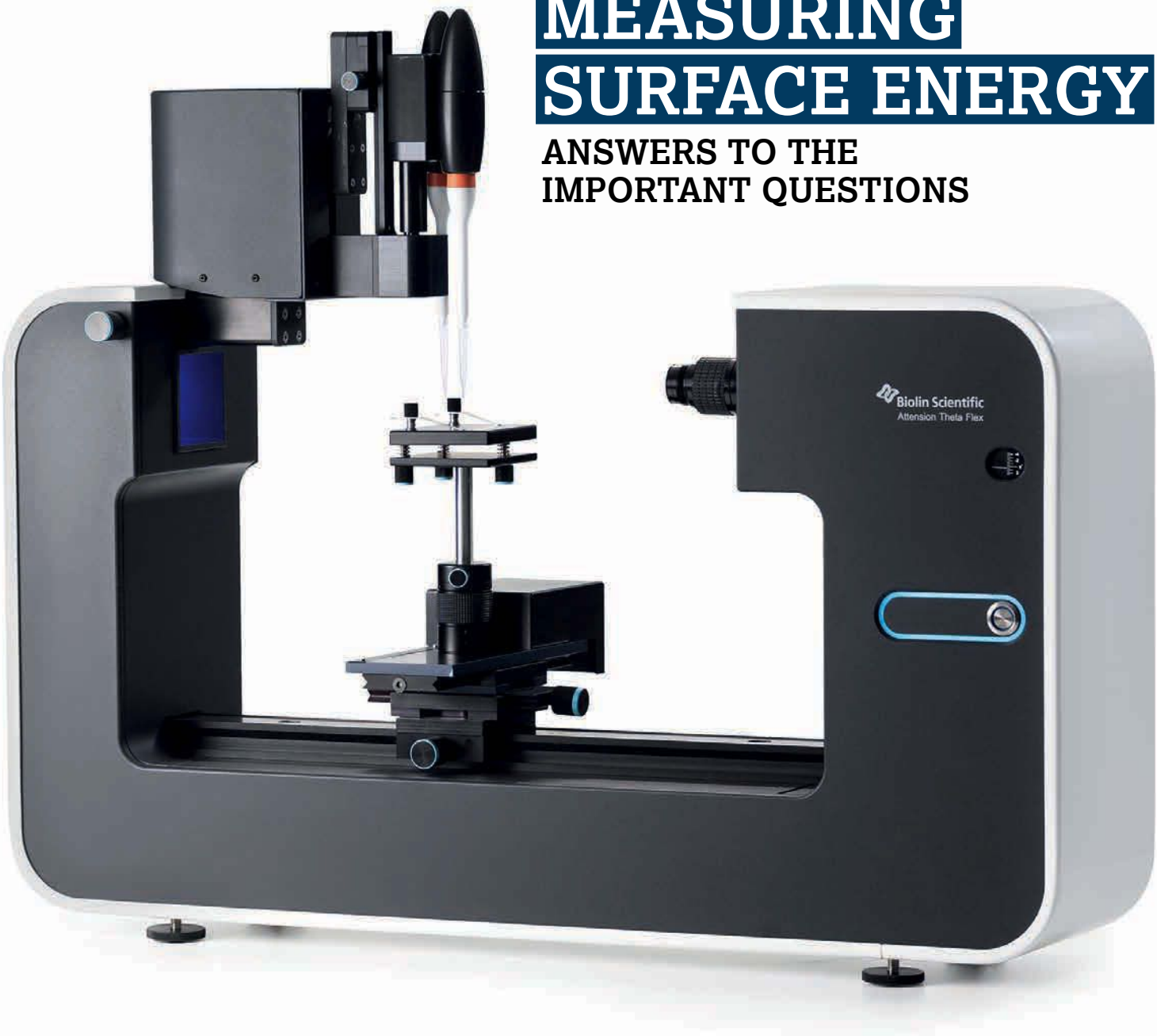
FAST

FASTENING & ASSEMBLY SOLUTIONS AND TECHNOLOGY

MEASURING SURFACE ENERGY

ANSWERS TO THE IMPORTANT QUESTIONS

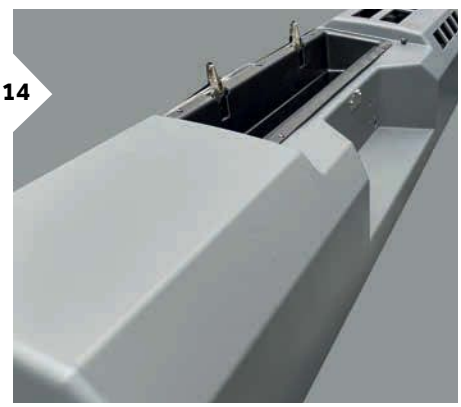


CONTENTS

REGULARS

UPDATES

FEATURES

14


16


22


INNOVATION THAT STICKS

Linecross has improved its automotive assembly process via IPS Adhesives's SG300-05. This solution has reduced the time spent switching between adhesives and eliminated the risk of applying the wrong one to the wrong material.

Linecross, a player in the UK manufacturing sector, specialises in producing composite and thermoplastic components for a range of industries, including automotive, rail, and leisure. One of its key partners is Dennis Eagle, a recognised name in refuse collection vehicle manufacturing. This partnership showcases Linecross's capability to meet the complex demands of modern vehicle assembly and deliver tailored solutions which set new benchmarks for modern manufacturers.

Building on this foundation, Linecross has enhanced its production capabilities by adopting advanced adhesive solutions that do more than hold components together—they drive innovation and streamline production. The use of IPS Adhesives' SG300-05 has been critical in improving processes at Linecross, setting an example for the entire automotive manufacturing sector.

SIMPLIFYING COMPLEXITY: THE UNIVERSAL ADHESIVE

Imagine a busy assembly line where workers are piecing together components made from various materials—plastic vacuum formings, metal components, synthetic fabrics and more. Traditionally, this would require multiple adhesives, each chosen for a specific material, leading to increased complexity and potential errors.

"When we started this project, we were using two, sometimes three different adhesives for a single assembly," recalls Jenna Pearce, senior commercial manager at Linecross. "It was time-consuming and prone to mistakes. The introduction of this new adhesive was a game-changer. It worked seamlessly across all materials."

The adhesive proved to be a reliable solution across the entire range of components, which was crucial for Linecross as the project involved a complex assembly combining multiple technologies and materials. "We wanted one adhesive that would work across the board, so we didn't need to switch mid-process," Pearce explains.

After extensive trials, the SG300-05 emerged as the best option. "Using one adhesive minimised adhesion issues," Pearce says, noting how this change has led to greater efficiency and consistency. The streamlined assembly process has reduced time spent switching adhesives and eliminated the risk of applying the wrong one to the wrong material.

This was more than just a matter of convenience—it represented a leap towards a more efficient, error-free process. As the automotive industry moves towards adhesives that bond diverse materials seamlessly, Linecross's experience is an example of how the right choice can simplify complex projects.

PERFORMANCE THAT STICKS

Reliability in manufacturing is crucial, and Linecross has achieved just that with IPS Adhesives's SG300-05. "We've seen exceptional performance in the field," Pearce says. "No adhesion issues, no complaints—just solid, consistent results."

In automotive manufacturing, adhesives must withstand extreme conditions, from high temperatures to exposure to chemicals. With the rise of electric and autonomous vehicles, demand for strong, resilient adhesives is increasing. The SG300-05 has met these challenges, ensuring that Linecross's components for Dennis Eagle are reliable and durable.

"We got full approval from the customer following all adhesion testing at the beginning of the project," Pearce shares. "We haven't had a single adhesion issue in the field. Silence from the

> "Our experience with this adhesive has shown us the value of investing time upfront to find the right solution."

customer means we're doing our job right." This level of performance has given Linecross peace of mind, knowing their products perform reliably in real-world conditions.

EFFICIENCY GAINS: TIME AND MONEY

By eliminating the need for multiple adhesives, Linecross has reduced downtime and errors. "We've significantly cut down on time wastage," Pearce explains. "Before, switching between adhesives slowed us down and increased the risk of using the wrong one."

The streamlined process has also improved overall efficiency, with less room for human error. "This adhesive allowed us to focus on getting the job done right the first time," Pearce adds.

Advancements in adhesive technology are increasingly helping to speed up production and improve durability. These innovations will play a key role in the mass production of next-generation vehicles, making Linecross's approach a standard for the future.

CUSTOMER SATISFACTION AND CONTINUOUS IMPROVEMENT

Customer feedback has been overwhelmingly positive. "The lack of negative feedback is a testament to the adhesive's reliability," Pearce says. "Also, our ability to consistently deliver high-quality products has strengthened our relationships with key clients like Dennis Eagle."

"We encountered minor issues during the pre-production phase, but these were resolved with prompt support from IPS Adhesives. Their willingness to come on-site and work with our team was invaluable." This ensured that any issues were addressed before full-scale production, allowing Linecross to maintain high standards throughout.

A BLUEPRINT FOR SUCCESS

With the success of this project, Linecross is not slowing down. "We're constantly looking at new adhesive solutions and how we can apply what we've learned to future projects," Pearce says. "Our experience with this adhesive has shown us the value of investing time upfront to find the right solution. It pays off in the long run."

Looking ahead, Linecross is already exploring the use of similar adhesive solutions for other customers. "We've started looking at solutions like the SG600 for Rutland," Pearce notes. "Finding a single adhesive that works across the board is something we're continuing to pursue because it offers the greatest benefits."

As the industry evolves with new consumer demands and regulations, Linecross's approach is more than just a technical achievement—it's a blueprint for the future.

L&L PRODUCTS

More broadly, IPS Adhesives has acquired a range of adhesives based on acrylate and methyl methacrylate (MMA) technology from L&L Products. This acquisition complements IPS Adhesives' specialist MMA-based product offering and provides a platform that enhances its ability to deliver innovative solutions that facilitate lightweighting and the bonding of dissimilar materials.

MMA-based adhesives cure quickly at room temperature, enabling rapid bonding and reducing production times. They are high-strength, versatile, and in demand for transportation, construction, automotive, marine, and various other industrial applications that have critical technical specifications and benefit from more versatile alternatives to mechanical fasteners, welding, and other traditional bonding solutions.

"This acquisition accelerates our ability to create and deliver even more high-performance solutions to our customers across Europe and North America. We're passionate about enabling customers to bond in new ways, as demonstrated by our recent launch of a groundbreaking lowsurface energy adhesive. The combination of our technical expertise with L&L's current MMA portfolio and pipeline products further enhances our ability to solve problems and innovate for customers," says IPSA president, Scott McDowell.

While L&L Products demonstrated technical success in developing advanced acrylate/MMA formulations, this transition will allow L&L to focus on the development and commercialisation of adhesives, sealants, reinforcements, and acoustic technologies that provide problem-solving solutions for the automotive and transportation markets, as well as diversifying the business to enter new markets.

"We are fortunate to have found IPSA, a company devoted to MMA technology and one that has already invested in the infrastructure needed to support it," says Jean-Michel Hollaender, President of L&L Products Europe.

IPSA will rebrand the former L&L product numbers A-K321 and A-K322 as Scigrip products. These products will continue to be available in Europe, with reduced lead times in the coming months as IPSA brings the products into their existing MMA operations. IPS Adhesives looks forward to launching new products from the combined product development pipeline.

L&L Products combines expertise in materials science, advanced engineering, and manufacturing process optimisation for customers to develop unique solutions that deliver structural reinforcement, substrate bonding, static sealing, and acoustic improvement for automotive, aerospace, commercial vehicle, construction, and consumer product applications. For nearly 70 years, the company's skilled chemists, scientists, and engineers have collaborated with customers around the world to make products lighter, stronger, and quieter. Today, L&L has over 1,200 employees worldwide, 10 manufacturing facilities, and locations in 15 countries.