

Preview adhesion Issue 04.2024

COVER STORY

Plasma surface treatment optimizes sustainability

Attractive design and a high-quality feel are increasingly becoming the focus of buyers. A consumer good that they look at, use and hold in their hands for hours, days or even months is becoming a the prestige product of the brand. Here, quality standards and brand image are tangible in the truest sense of the word. Longevity therefore plays a key role. With the use of plasma in the cleaning, activating, coating and (etching) processes, activation, coating and (etching) processes, the surfaces for painting, printing or bonding are greatly improved, printing or bonding are greatly improved.

PLANT AND PROCESSING EQUIPMENT

Always perfectly on track
Industrial bonding and sealing processes require maximum precision. Material must be applied at the right places at high speed. In conventional solutions, the robot and dispensing unit are separate from each other and each requires its own control system. ABB, on the other hand, offers an integrated overall solution with uniform control of all systems. Users benefit in several ways: they can increase process speed, boost productivity, maintain quality at a consistently high level and simplify handling.

APPLICATIONS

Flow simulation of mixers (Part 2)
Flow simulations or CFD (Computational Fluid Dynamics) are an established method for the computer-aided analysis and solution of problems relating to fluid flows. With this method, it is possible to virtually examine the internal or external flow field of a product before a first prototype is manufactured. In this way, a design variant can be realistically analyzed and, if necessary, optimized through design adjustments. Ideally, only a few tests are required later on. In this way, CFD simulations can speed up development cycles and reduce development costs.

Flexible bonding and sealing of battery systems

The requirements for the production and processing of batteries for e-mobility are increasing. The bonding and sealing of cell modules and battery packs plays an important role here, as the precise application of adhesives and sealants makes a significant contribution to the safety and service life of the batteries. New battery types with different designs and increasing performance require ever more flexible solutions.

TRENDS AND EVENTS

Sustainability Award 2025: Application deadline started
The ATZ/MTZ Group and Arthur D. Little are presenting the Sustainability Award in Automotive for the fourth time in 2025 for companies that make an outstanding contribution to the UN Sustainable Development Goals. Products and services from vehicle manufacturers, suppliers, service providers and start-ups from the passenger car, commercial vehicle, 2- and 3-wheel and micro and urban mobility sectors can be submitted.

RESEARCH AND DEVELOPMENT

Klebtechnik im Kontext der Ökobilanz-Wirksamkeit und Kreislaufwirtschaft
Der Green Deal der EU-Kommission umfasst den Aktionsplan Kreislaufwirtschaft, der den Übergang von der Linearwirtschaft zur Kreislaufwirtschaft beschreibt. Der Aktionsplan betrachtet den Produktlebenszyklus ganzheitlich und bewertet ihn hinsichtlich seiner Ressourceneffizienz insgesamt. Die EU-Abfallrahmenrichtlinie und das EU-Katalogisierungssystem mit den neun R-Strategien dienen als Wegweiser für die Kreislaufwirtschaft und stellen einen Bezug zwischen Ökodesign und Kreislaufwirtschaft her. In diesem Kontext leistet die Klebtechnik herausragende Beiträge und ermöglicht es, Verbindungen wieder zu trennen, ohne dem Recycling entgegenzuwirken.

DATES

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Copy deadline: 10/21/2024
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