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The Unique Properties of Adhesives and Sealants in Electronics and Disassembly Functions

The adhesives industry will continue to develop products for the electronics industry that optimize durability and end-of-life solutions through options such as recycling and repair potential.

Isabelle Alenus

May 23, 2023

Considering Europe's future-focused drive towards an increasingly <u>circular economy</u>, FEICA actively supports efforts to improve product efficiency and circularity to help create a more sustainable society. The use of adhesives and sealants in many sectors, including <u>electronics</u>, contributes to improved durability, <u>recycling</u>, CO2 reduction, repairability, upgradability, and material efficiency of final products.

To FEICA and its members, it is important to raise awareness of the adhesive and sealant industry's contribution to the circular economy, internally and externally, in terms of both activities to improve the sustainability of its own industry and help for customers and end-of-supply-chain industries (recyclers) to operate more sustainably. They therefore support the need for Ecodesign, for example, in order to encourage end-of-life reuse and recycling solutions for electronic products and components.

The aims for reducing waste and ensuring full circularity of the economy go beyond what economic actors can achieve alone. FEICA has already been an active advocate of the Ecodesign legislation proposals for electronics and supports the principle that design for circularity is important.

The value proposition of adhesives and sealants is an integral part of many global value chains. They are an outstanding and versatile fixing solution. For adhesive technologies to make the sustainability benefits of next-generation goods possible, the use of appropriate adhesive <u>bonding</u> solutions to facilitate repair and recycling should be properly planned and engineered during the design phase of a product.

Adhesives in Electronic Device Design

The use of adhesives as a joining technology in electronics allows the extension of the life span of products and components, offering increased durability with waterproof capabilities. These solutions allow designs for lighter, more shock-resistant, and better sealed products. They enhance features such as resource efficiency through increased durability and lifespan of the product, leading to fewer repairs and conservation of resources, as well as convenience and safety for the consumer. Adhesives additionally bear many advantages in the manufacturing processes, such as energy and material efficiency. With regard to the climate goals of the EU Green Deal, the complete life cycle of a product should be taken into account.

The adhesives industry will continue to cooperate by reaching out to relevant sectors or contributing to consultations of Ecodesign studies from the EU Commission to optimize durability and end-of-life solutions through options such as recycling and repair potential. We plan to further engage with relevant experts, as needed, to support a societal and pragmatic shift to a more sustainable future.

Learn more at www.feica.eu.

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