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EPOXY EUROPE

NEWSLETTER

WIND TURBINES: CLEAN ENERGY AND BEYOND



Image by onlyyouqj on Freepik

Wind turbines are not only producing clean energy but at the end of their lifecycle their dismantled components can be re-used or recycled giving them a second life in the economy.

As a standard rule, the lifetime of a wind farm is around 20 to 25 years, even though some wind turbines can produce clean energy for up to 35 years for instance by upgrading some of the components. This means that nowadays some wind turbines are dismantled, and the components prepared for creating further value – be it by reusing the parts, recycling of components and materials, or recovering energy. 85 to 90% of a

wind turbine's total mass can be recycled. Most components of a wind turbine – the foundation, tower, and nacelle components – are treated according to established recycling practices.



A Neowa recycling plant. Up to 90% of a wind turbine's total mass can be recycled. Image Credit: © Thomas Wegman

Energy recovery is often applied to the Rotor blades, as they are made of composite materials. This is usually done through what is known as thermal recycling. For decommissioned blades that cannot be reused or repurposed, the recovery through cement co-processing is a valuable way of saving resources: Glass fibers and fillers (approximately 70% of the composite's weight) are used as raw materials for cement. It helps save resources by replacing virgin raw materials in its oxide form. The resin matrix (30% of composite's weight) is used as fuel, replacing normal fuel to generate heat, generating a high energy conversion efficiency. This leads to reducing the energy and CO₂ emissions in the cement clinker manufacturing process, while replacing mined raw materials. Making this way of recycling a useful and efficient way to get the most out of the materials that have already done their part for decades in producing clean energy. And there is so much more potential in it, as many other composites applications, such as glass-fibre composite boats, are ready to apply similar systems.

ART WITH EPOXIES



A decorator holding a handmade epoxy resin glass tray sold in her studio

The art world is constantly evolving, with artists seeking new ways to express themselves and push the boundaries of creativity. In recent years, there has been a growing trend towards using epoxy resin as a medium of art.

This March [YWCA NY](#), in collaboration with CREATE Community Studios, celebrated International Women's Day with an artist exhibition featuring over 35 local artists as part of their female empowerment efforts. The exhibition showcased diverse mediums of artwork, highlighting the remarkable talent of the artists on display. Among the standout pieces was Mariah Brown's "Baby Heirs: Baby Hairs and Afros," a digital print on canvas coated with epoxy resin, which garnered significant attention for its vibrancy, creativity, and uniqueness. Brown expressed her preference for epoxy resin, citing its versatility, texture, and ability to make artwork stand out.

This growing trend of artists turning to epoxy resins as a medium of creative expression is not limited to Brown alone. Multi-award-winning

contemporary artist, Shadab Khan, recently created a [gigantic masterpiece](#) using epoxy resin for Dubai-based businessman, Shaji Ul Mulk.

Epoxy resins have been used for decades in industrial and commercial applications, but in recent years they have become increasingly popular in the world of art. Epoxy resins offer artists a unique medium that allows for endless possibilities in terms of colour, texture, and form. With its ability to create a hard, durable, and glossy finish, epoxy resin has become an interesting material among artists, sculptors, and craftsmen alike.



Epoxy resin cup holders and trays cut in marine shapes.

One of the key advantages of epoxy resin as a medium of art is its versatility. Unlike traditional art mediums like paint or clay, epoxy resin can be manipulated in numerous ways. It can be poured, spread, dripped, or layered to create a wide range of effects. Additionally, epoxy resin can be mixed with various pigments, dyes, and other materials to achieve a custom colour and texture. This allows artists to create unique pieces that are both visually stunning and one-of-a-kind.

Another reason for the growing popularity of epoxy resin in art is its durability. Epoxy resins are incredibly strong and resistant to scratching, cracking, and yellowing over time. This makes it an ideal material for creating sculptures and other 3D

works that require stability and long-lasting beauty. Moreover, epoxy resin is waterproof, so it can be used to create outdoor artworks that can withstand the elements.



A demonstration of the process of making sea on a two-component resin board.

Epoxy resin has become a popular medium of art due to its versatility, durability and ease of use. It could be the medium of choice for stunning, unique and durable pieces.

To learn more about handling and working with epoxies safely, try the Epoxy Europe Safety App by clicking below.

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EPOXY EUROPE JOINS EuCIA



*Gerhard Mueller and Ana Martin Hoya representing Epoxy Europe and Roberto Frassine, President, EuCIA, celebrate their collaboration with representatives from their organisations.
Image Credit: EuCIA Website*

The European Composites Industry Association (EuCIA) welcomed Epoxy Europe to its network in January this year. The move marks a closer collaboration with the advanced composites sector and further strengthens EuCIA's position as the voice of the European industry. With the addition of Epoxy Europe, EuCIA expands its existing network of national composite industry associations, industry-specific sector groups, and associated members.

According to Ana Martin, sector group manager at Cefic, the epoxy industry is committed to supporting Europe's ambition to become climate neutral by 2050. Epoxy resins play a vital role in many fundamental technologies critical to achieving the European Green Deal. With this in mind, Epoxy Europe is aligned with EuCIA's sustainability initiatives and is eager to share its knowledge and best practices to support the sustainable growth of the composites industry in Europe.

Know more about the significance of the collaboration by clicking the learn more button below.

[Learn more](#)

CELEBRATING WOMEN IN THE EPOXY SECTOR



In honour of International Women's Day in March, Epoxy Europe shone a light on the remarkable women who are making significant contributions to the epoxy sector. Four accomplished women in the sector, including Ann Frederix, the Senior VP of Westlake Epoxy; Ines Emminger, the Global Regulatory Issue Manager of Huntsman; Silke Tenbrock, the Global Product Stewardship Lead of Olin; and Ing. Lenka Filipova, a technologist at SPOLCHEMIE, share their experiences and insights on building successful careers in the epoxy industry. From developing sustainable solutions to ensuring product compliance with regulatory requirements, these women offer valuable perspectives on their work and the industry. The diversity of their roles and experiences highlights the broad range of opportunities available to women in STEM fields, and serves as an inspiration to future generations of young women pursuing careers in science and technology.

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