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EPOXY EUROPE

NEWSLETTER

-UNBREAKABLE BONDS-

How epoxy resins make everything more durable and visually appealing around us

Although most of us may not be aware of their omnipresence, epoxy resins are uniquely versatile resin material used in many different industry and professional applications. Interior design and furnishings have majorly benefited from the introduction of epoxy technology since it provides almost limitless design choices for flooring, tile grouting, bathroom painting, and furniture enhancements.

Flooring

Epoxy flooring withstands heavy footfall traffic while its shiny, high-gloss texture brightens up interiors significantly.



Maintaining and cleaning epoxy flooring is easy. Epoxies are highly resistant to dents, scratches, chlorine, and other detergents such as bleaches and daily cleaners. Pathogens and bacteria don't like to grow on epoxy floors... which is good news! This is why it is used so widely in hospitals.

The combination with vinyl chips/quartz enables the production of exciting terrazzo flooring patterns.

As you can get really creative too! There are amazing new 3D epoxy flooring applications that do just that. Many malls, apartments, hotels, and some residential buildings use epoxy 3D flooring to enhance the creative element of their interior design. 3D flooring requires precise installation which starts with a layer of self-levelling epoxy primer which is followed by the desired epoxy flooring image. Subsequently, a two-component epoxy resin system at a prescribed thickness is applied to give the perfect visual depth for the 3D effect! Finally, a thin layer of protective varnish is applied to protect its long-term beauty.

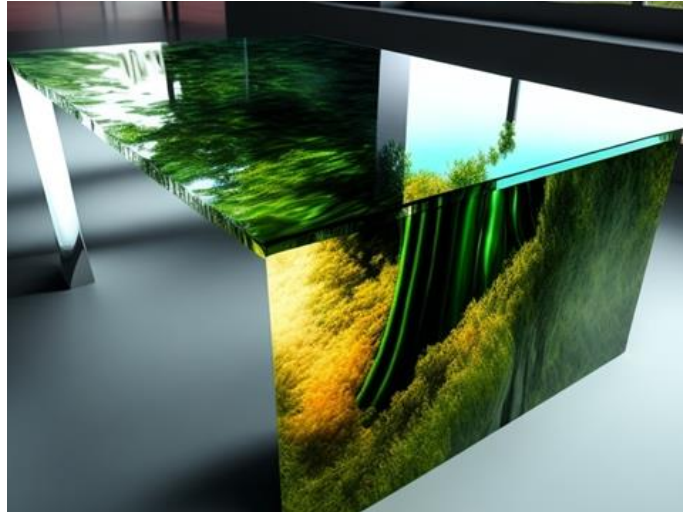


Bathroom wall and floor coatings



Epoxy paints for waterproofing bathroom walls are the most durable paints for floors and walls. As with epoxy floor coatings, they offer unlimited design freedom but require thorough surface preparation before application. Since wet epoxy floors can become very slippery, integration of small quartz particles is recommended to provide a secure stance while being wet. 2-K epoxy bathroom coatings will boast longevity and high chemical resistance to detergents and cleaners without suffering from blemishes.

River table and kitchen countertops



Epoxies provide an extremely luxurious look to river tables and kitchen countertops. They can also be applied as retrofit coatings to existing worn-out tabletops and countertops as well which scores a point or two in the sustainability category by reducing resource consumption. Tabletop coatings provide a highly durable, high-gloss finish which is chemically, heat, and water-resistant. Given the toughness of epoxy coatings, surface finishes are easy to maintain and long lasting.

Epoxies provide a unique synthesis of durability and visual appeal enhancing our daily lives just that little bit more while the longevity of epoxy coatings reduces resource consumption, making our preferred design solutions more sustainable.

EPOXIES AND HISTORICAL MONUMENTS: A RESTORATION STORY

History is all around us, and getting to experience some of the architectural prowess or iconic

monuments of the past can be quite the awe-inspiring experience. But history means time has passed... and time inevitably takes its toll, which is why the preservation and restoration of historical monuments, buildings and artifacts is so important.



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Since the mid-1960's, epoxies have become a go-to solution for historical restoration, with some of the earliest examples of use in Poland. In 1966, the restoration of **the portal of the 'Eskens House' in Torun** was done by Prof. Wiesław Domasłowski, Polish chemist, and his students[1].

The portal was made of gray sandstone that was ornately sculpted and painted, but overtime, flaking appeared under the paint that remained and, where the paint had chipped, the sandstone fragmented and powdered. The newly developed 'pocket method' was used to coat the portal in epoxy resins to preserve it.

Since then, epoxies have been used in much more ambitious projects. Case in point: the restoration of two colossi in Egypt by Spanish archeologist Miguel

Ángel López Marcos[2]. Both colossi, “**the standing monarch**” representing Pharaoh Seti II, and “**the sitting colossus**” representing Ramses II, were put back together, reattaching pieces through a “sewing” technique requiring bolts and epoxy resins for reinforcement.



The colossi of Ramses II in front of Luxor Temple



Epoxies can also be an important part of ‘invisible’ and innovative improvements of historical sites. Take **Pompeii**: photovoltaic panels were installed to power the site, but with a desire to not ‘visually pollute’ it... So what was the solution?

Italian company Dyaqua[3] developed ‘invisible solar’ roof tiles[4] -made of terracotta and coated in epoxy resins- that contain photovoltaic cells, allowing these new generation solar tiles to

produce electricity without affecting the visual landscape of the iconic historical site.

Epoxies can and have been used extensively in restorations across the world: the Neuschwanstein castle mosaics in Germany, statue restorations in Italy an even historical building restorations in the United States... So next time you stand in front of a recently restored monument or building, spare a thought for the wonders of epoxies that likely made it possible!



[1] [Epoxy Resins in Stone Conservation](#) (p. 79), Charles Selwitz, The Getty Conservation Institute.

[2] [El arqueólogo español que levanta colosos en Egipto](#), Francisco Carrión, El Mundo

[3] [Epoxy, the new invisibility cloak](#), Epoxy Europe

[4] [\[L'industrie c'est fou\] Ces tuiles en terre cuite renferment... des panneaux solaires](#), Elise Pontoizeau, L'usine Nouvelle

WHAT WOULD THE WORLD LOOK LIKE WITHOUT EPOXIES?

From helping electronics be more efficient, to increasing the durability of our home appliances or enabling key green energy technologies like wind turbines, take a look at our video below to discover all the positive ways in which epoxies have an impact on our daily lives!



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