

A Brief History of Paint Development for Glass Coating

Transparent, recyclable, chemically resistant, and malleable – glass is one of the most popular materials. This versatile material not only has a long tradition, it also tells new stories every day – especially as packaging for modern luxury brands. Glass coating technologies must meet high standards in terms of design, functionality, and sustainability.

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At the turn of the millennium, the cosmetics and luxury perfume industry flourished in France, and with it the development of modern, creative, and visually appealing packaging. Its function went far beyond protection – the focus was particularly on design and quality, as well as conveying brand identity. Luxury goods packaging still has these functions today – now complemented by the high demand for sustainability.

At the same time, the glass coating industry has undergone targeted further development. It is no coincidence that a milestone in glass coating development was set in France, which is considered the cradle of the luxury industry. At the end of the 1990s, Weilburger France was one of the first paint manufacturers to develop a solvent-based epoxy clear coat that adheres directly to glass. This innovation made the bonding agent commonly used in glass coating at the time superfluous and created the basis for further intensive research and development.

With growing awareness of environmental protection, international luxury brands and corporations increasingly focused on sustainable packaging. The combination of technological progress and ecological responsibility became increasingly crucial for success in a changing market.

Modern binders for demanding surfaces

In the coating industry, the use of modern binders led to a shift from solvent-based to water-based coating systems. In 2005, the first water-based clear coats for glass were introduced, which are now used in over 80 % of applications. UV-curing clear coats and low-temperature curing water-based coatings also offer an alternative. They reduce energy consumption by around 20 % compared to conventional systems.

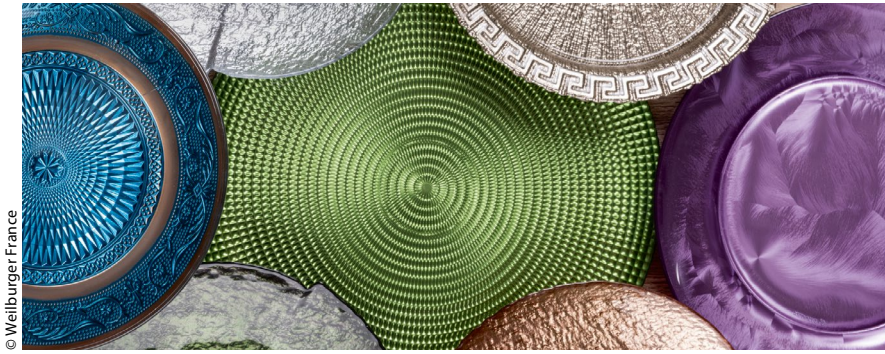
These binders are not only more environmentally friendly, but also offer greater flexibility, less yellowing, and optimized flow properties on complex glass shapes – improved properties that are particularly crucial in luxury packaging. They enable a uniform, brilliant surface, regardless of the shape and color of the glass. The combination of innovative binders and tailor-made additives makes it possible to reconcile the requirements of design, function, and sustainability. Metallic effects or special color gradients offer a wide range of design options that speak the language of the brand. The coating thus serves both as protection and as part of brand communication.

Luxury brands focus on sustainable and environmentally friendly solutions



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Water-based glass coatings enable trendy colors and designs for tableware.



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The glass coating not only adds a visual effect – it is also approved for indirect food contact and is scratch, chemical, and dishwasher resistant.

Especially with premium spirits and luxury fragrances, the packaging tells a significant part of the brand story. While the whiskey finds its way to the end consumer in a warm, amber-colored bottle, the vodka features a bold, innovative design with a special metallic effect coating that gives the bottle a futuristic character that perfectly suits the target audience. One luxury fragrance is presented in a deep blue glass bottle and embodies raw, natural power. The other conveys refined elegance and form, which is specifically emphasized by the coating.

Collaboration and knowledge transfer

The secret to success for the joint journey of glass packaging does not require a crystal ball, but is obvious. The development of glass coatings is characterized by intensive collaboration between paint producers and glass manufacturers, users, and brands. Interdisciplinary teams of experts are continuously working on the further development of technologies and the dissemination of best practices. The aim is to provide innovative, high-quality, and sustainable solutions for various glass applications and to make them available locally. Corporate social responsibility (CSR) also plays an important role. A targeted CSR approach enables companies to offer not only ecological but also holistically responsible customer solutions. In 2025, Weilburger France was awarded the EcoVadis Platinum Medal for the fourth time in a row. Since May 2024, Weilburger Coatings has been part of the global coating manufacturer Kansai Helios. //



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Special effects such as the feather effect create an extraordinary look. Premium spirits use effects like these to convey their brand message.

without compromising their exclusive appearance. This attitude is particularly reflected in the packaging, especially in the bottle. The glass coating reliably protects the glass surface from external influences without compromising its aesthetic appeal. Rather, it enhances the brilliance, shape, and overall appearance of the glass and conveys the brand's high quality standards.



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A special primer and topcoat create the basis for an optimal silver surface on bottles and other glass objects.

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