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Light Diffusing Ink

An innovative transparent ink for screen printing on transparent plastic and glass, that becomes visible only when enlightened by coloured LEDs

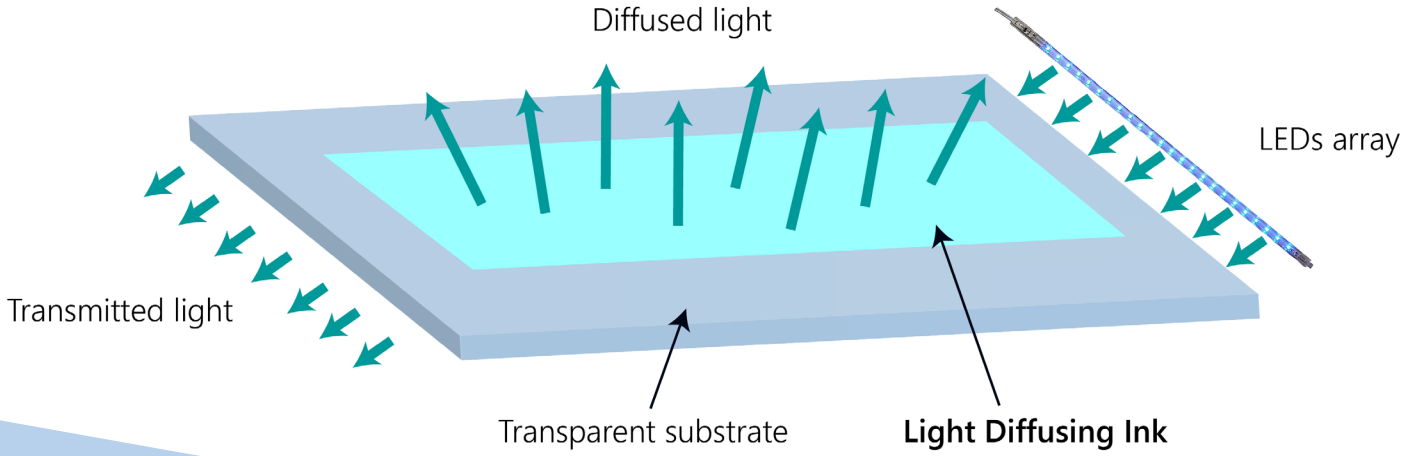
LED switched OFF

LED switched ON

Innovative technologies and products research for Advanced Finishing is one of the drivers that marks the daily activity in EPTANOVA Community. The launch of a **new special ink for industrial printing** follows this lead: the Light Diffusing Ink, developed by EPTAINKS R&D laboratories, represents a breaktrough for glass decoration industry.

Light Diffusing Ink is a product for screen printing on optically transparent **glass**, **PC** and **PMMA** panels that is **visible only through a dedicated LED illumination**: the printed image is in fact invisible in natural/artificial light condition or without any lighting, turning coloured only when the LED source, located at the edges of the transparent substrate, is switched on.

The final effect is therefore that of a **"light ink"** capable of spreading the light of the LEDs, whatever color it is, resulting in graphics with a strong visual impact.
The potential of this product and its practical applications are numerous and particularly interesting in the **Signage** and **Habitat Industries**.



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Shop windows printing, for example, could benefit from the Light Diffusing Ink for creating appealing graphic artworks with a strong visual impact, that are able to distinguish themselves and attract the customer's eye in an already overcrowded environment, without losing the functional and structural features of transparent materials. At the same time the opacity problem caused by stickers or decals, which are an obstacle to the natural light crossing and are one side visible only, is overcome. Thanks to this ink you are also able to create complex designs, achieving **animations on the surface** through intermittent lighting.

Even for Habitat, Light Diffusing Ink applications are innovative and have great potential, both functional and aesthetic. Applications include the **printing of transparent doors and walls**, that become lighted bodies having an increased communication impact and providing a higher safety to people. Some uses could be the lighting of doors when a meeting is held in a room, the **decoration of staircases** and side surfaces of moving staircases, e.g. in malls, to enhance brightness in the environments with an immediate aesthetic impact – as well as lighting the pedestrian path – or application to chromotherapy cabins in SPA and beauty centres.

Furthermore Light Diffusing Ink **facilitates and enhances the functionality of LEDs** that, thanks to their energy high efficiency and low impact on the environment, will soon replace the traditional light sources. In fact, they have become a constant presence in many application areas, also thanks to their small dimensions that allow easy integration into furnishings, signs and more, with a minimum footprint of light source.

From a technical point of view, Light Diffusing Ink is a two-component **solvent-based ink**, with high chemical and outdoor resistance, excellent flexibility and adhesion: the product exists in two formulations, one for plastic (**LDI FOR PLASTIC**) and one for glass (**LDI FOR GLASS**).

To find out more and get more details, you can look up at the product TDS.