



Direct-To-Object, or DTO printing, is a distinctive form of digital printing that involves using ultraviolet (UV) light to cure or dry the ink almost as soon as it is applied to a prepared substrate. This unique UV printing process is very special. The substrate can include flat objects and any domed or cylindrical objects. You can use almost any metal, acrylic, plastic or glass as well as canvas and wood. As the UV ink is distributed onto the substrate, specialized ultraviolet lights within the printer are immediately applied to the material over the top of the ink, drying it and adhering it to the substrate.

Initially, UV printing was used to create gel nail polishes. After the gel polish is applied, a UV light is used to cure the polish onto the surface of the nails. This results in a flawless manicure that is quick drying, durable, and long-lasting. Eventually, however, the benefits of ultraviolet light applications expanded and began being used in commercial and industrial markets. This was the beginning of UV printing and the associated printing business. This technology is used to produce flyers, leaflets and screen printing. UV printing is very similar to traditional printing. But the inks used as well the drying and curing methods are different. This is in addition the distinctive nature of printing technology.

Traditional printing uses solvent inks that are applied to a substrate and heated to cure it. Solvent-based inks may evaporate and spread onto the substrate's surface before drying. This can release volatile organic compounds (VOCs). The heat used to cure the solvent ink to the substrate [Look at more info](#) produces an unpleasant odor. Furthermore, the solvent inks are absorbed into the substrate, which can result in faded colors. Spray powders also make it difficult to dry the ink and prevent it from offsetting. This can cause the entire process to take several days. Due to the nature of the printing press, traditional printing can only be done on paper and other similar materials. It can't be used on metal, plastic, glass or acrylic.

With UV printing, specialized UV inks are used. High-intensity LED ultraviolet light is used to cure the ink onto its substrate. The ink is spread onto the substrate by the ultraviolet light. No matter what substrate is used, the ink will dry quickly. The ink does not evaporate because it dries quickly. Therefore, it can't spread onto the material that it is printed on.

In addition to the quick-drying capabilities and the eco-friendliness of UV printing, this ultraviolet printing method and the associated form of ink transfer can also be used with various materials, including paper, plastic, foil, acrylic, foam, etc. There are no VOCs or ozone emissions into the atmosphere. This feature will interest companies that prize sustainability in their printing processes.

Imagine all the possibilities when digitally printing is possible on an item. Instead of using a sticker to attach to the object, you can imagine the possibilities. DTO Direct-To-Object lets you print in full-color directly to the object.