



# Is There Really a Difference Between Original and Third Party Ink?

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## ***Introduction***

Non Original Equipment Manufacturer (OEM) ink has many names: third party, aftermarket, alternative or generic ink. Whatever the name you choose, or how it is referred to in your country, it always means the same thing, an ink which competes with OEM ink and presents another option for Print Shop Providers (PSP) as an alternative to buying from the printer manufacturer.

Five to seven years ago, there were Print Shop Providers (PSP) that were not familiar with non-OEM inks and did not use them. Today there is no doubt that all PSP are familiar or have been approached by a representative of an alternative ink provider. Common sense might dictate that OEM ink is optimal for the printer, since it is made for a particular printer and therefore might optimize printer performance. However experience shows that it is not necessarily so.

Here are some Facts about printer manufacturers and their ink:

- 1) Printer manufacturers primarily focus on manufacturing printers.
- 2) Printer manufacturers don't have the expertise or the infrastructure to dedicate both time and resources to ink and to printer development.
- 3) In most cases, printer manufacturers commission ink development from well-established ink manufacturers worldwide who sell them under OEM contracts as original inks.

## ***Business model: Case studies***

The business model and nature of OEM ink manufacturers vary. Some ink manufacturers work strictly for OEMs and do not sell inks to other vendors. Other OEM ink manufacturers sell the exact same product to other customers under their brand name or private label. This is common practice across the board for UV-curable, solvent and dye sublimation inks.

There are also cases in which the printer manufacturer enters a joint venture with the ink manufacturer. In this scenario, the ink manufacturer's identity is known and the printer manufacturer endorses the ink manufacturer.

## ***Can you tell the difference?***

No matter if the ink manufacturer is tied to the printer manufacturer via licensed OEM ink manufacturing agreements or if they sell third party ink for the printer, in both cases, ink manufacturers invest similar



resources in research and development of the ink. The investment includes testing, production and marketing costs involved in introducing new products. However, it is up to the end user to select a trusted third party ink manufacturer that provides a full guarantee for any damage caused by the ink to the printhead or to fading of the printed material and, as with any new product, to test the ink.

In the case of original inks, the end user normally purchases original ink from the same place s/he purchased the printer and is not always aware of the wheeling and dealing behind the ink. This brings us back to the original question: is there really a difference between "original" ink and third party ink?

In order to answer the question fairly, we must break down the answer.

The answer varies depending on ink type, printer and manufacturers. Third party ink companies focus solely on ink. These companies invest in the research and development of many types of inks intended for various printers. The most common wide format digital inkjet inks are true solvent, solvent, which includes Eco, Mild and Low solvent, UV/UV LED, water based inks which include Latex and Dye sublimation used in textile applications.

The best-selling inks in the wide format industry are for solvent based printers. ECO solvent baes ink chemistry replaced the potentially hazardous true or hard solvent ink. Made from environmentally tolerable solvents, the Eco, mild and low solvent inks were born. The changes in the ink were triggered by environmental considerations.

### ***Facts about 3<sup>rd</sup> party ink manufacturers***

True solvent inks are a cheap, easily developed formula which requires little research. In the case of this ink the quality of OEM and the third party inks are similar. The only guideline for the end-user should be the price since in spite of each company's promises, one would not likely find difference between the various brands.

However, Eco and Mild solvent variants are the main solvent inks used today. The stages of development and complexity result in significant differences in quality. The first of these ink chemistries that were introduced were OEM inks compatible with the Eco/Mild solvent based printers.

Due to their revolutionary composition and production process few third party manufacturers followed with a compatible product since this product posed a challenge for third party ink manufacturers in terms of high capital investment in research and production. Not many third party ink manufacturers have enough breath to bring it to market.

There are only a handful of companies that have the tenacity to undergo the development, production and intensive testing to offer OEM compatible inks. Among these independent ink manufacturers, Bordeaux Digital Printink is among those that are leading the way.

These independent ink manufacturers usually manufacture in smaller batches compared to OEM with better quality assurance and can also cater to specific customer needs such as special packaging and even tailor



made inks for specific applications. OEM ink manufacturers cannot always offer this versatility. OEM inks can have quality issues such as a batch which required a recall or even a famous case of a leading Japanese printer manufacturer that had to recall a complete line of UV-curable inks, leading customers to seek third party inks.

### ***The Necessity for Long-term Research***

The smaller unknown companies don't usually invest in long term Research & Development but sell lower quality inks that do not meet the requirement for Eco and Mild solvents. Purchasing cheap ink or ink from an unknown source can shorten the life of the printhead, cause clogging or accelerate the depreciation of the printer.

The competition in the industry forces printer and ink manufacturers to offer machines and consumables which are intended for specific applications. Already today OEMs offer Eco and Mild solvent based printers for specific applications e.g. Epson GS6000 which Epson claims high speed photographic quality printing achieving extreme color gamut with 8 colors slots including orange and green. Some creditable third party inks manufacturers offer OEM quality fully plug-and-print products that match OEM in quality, color and enables transparent conversion without prior or post preparations.

The printer to ink specific standard is also effective for UV-curable & UV-curable LED printers for which non-OEM ink manufacturers have a ready solution including compatible chips as a chip bypass solution for overcoming the printer barriers. Bordeaux Digital offers specific inks for Océ Arizona<sup>TM</sup> and Acuity<sup>TM</sup> printers and EFI VUTEk QS printer series. These inks are specific for these printers and include a compatible chip or a chip bypass solution which defuses the obstacles met by end-users during installation.

Independent ink manufacturers also initiate development of inks that are not associated with specific printers but offer added value to the market. Ink manufacturing companies have the infrastructure and suitable R&D to support these activities. An example of such a product is the development of Bordeaux Digital's Latex based inks for Piezo printheads, unlike HP's Latex ink intended only for HP's thermal printheads which are a different technology sold only by HP.

### ***Conclusion***

This review should eliminate most of the hesitations involved with third party inks. There are several trusted wide format ink manufacturers, including OEM and third party that offer similar quality products. If you are seriously considering moving to third party ink, make sure you choose your ink vendor carefully in order to ensure a high quality product. As a rule of thumb try to avoid unfamiliar brands and prefer brands that have been in the business for at least 10 years. Don't be intimidated when asking questions and demand an ink trial kit prior to your decision since consumables are likely to be the most costly expense after the printers. Once you make the decision to switch, it is very likely you will save 40%-70% on ink costs, depending on the printer, media and application.