

## **Using the technology of separating the seven colors (Prinect) as a substitute for Pantone colors in the printing and packaging industry for its economy and improving the quality of the Final publication**

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### **Abstract:**

The printing, packaging and packaging industry is one of the leading industries on which many depend, and then there have been many researches and developments towards this subject, especially in the production of high-quality colors to attract consumer products, and trends have always been going to print basic colors and also Pantone colors, especially in the field Packaging, and in the Pantone color system is difficult to obtain the same tones by the client because the Pantone colors when mixing can occur an error rate, as well as the high cost of buying inks, it became necessary to resort to a technique that helps us a lot in harvesting L on the same colors and high quality and at a lower cost so that this does not reflect on the selling price of the product in the market or reflected on the competition. Which led us to the emergence of a new technology that facilitates us to obtain a color range similar to the Pantone colors, but in an easier way and lower costs is the technology Brink seven color system, a system that uses the basic colors CMYK in addition to three other colors are orange, green and blue.

The three colors are from the group The 14 basic colors of the Pantone system, which were selected from this group and added to the four main colors CMYK to expand the color range to get the idea of the 7 colors and a total of 14 colors, which includes orange, green and blue cannot mix any of them and are Manufacturing each one Binging and put it directly in the packaging, And the delivery of the customer, as the Pantone system works in two ways the first way to choose a color from the total of 14 such as the choice of orange and in this case the customer buys this color in the required quantity and ends up with the second way choose a color has a number of the total of 4300 colors and in this case Color must be mixed with proportions of the total of 14 basic and this second method is that the system of 7 colors to end it work. The color separation in this technique is developed by programs that separate the design into seven printing colors. Brink technology requires an integrated system consisting of several phases linked by application programs for each stage of production From the design phase through color separation and montage to the final product delivery, this system is managed using artificial intelligence, which performs calculations and measurements to control color values and compare them with ISO standard values, analyze results and correct errors, to bring the product to high quality.

### **Key Words:**

Pantone Color - Prinect - EΔ Color change rate.