

## **How many kinds of packaging materials are there? What are the main characteristics of packaging bags?**

When printing on the packaging bag printing substrate, attention should be paid to the characteristics of the film's surface tension, heat shrinkage, surface smoothness, deformation, high temperature resistance, and solvent solubility to the film. The control of these characteristics is an important factor that affects the quality of packaging bags.

The following is the printability of several kinds of packaging bags:

### **1.BOPP packaging bag**

For the most common packaging bag printing substrates, pay attention to surface tension, heat shrinkage and surface smoothness, and no fine pits, otherwise it will affect the shallow mesh part, the printing tension and imprinting force are moderate, and the drying temperature is below 80°C.

### **2.BOPET packaging bag**

Because PET packaging bags are usually thin, 12μm, they are easy to wrinkle and require greater tension during printing. They have a certain selectivity to the ink. It is best to use special inks. It is easy to peel off with general printing inks, and the film has high static electricity. Blocking, fluffing, and scraping marks (knife wire) occur. In addition, high humidity in the workshop during printing has certain advantages, as it can withstand higher drying temperatures.

### **3.BOPA packaging bag**

The biggest feature of BOPA packaging bag film is that it is easy to absorb moisture and deform. This key point should be grasped when printing.

(1) The size of BOPA changes after it absorbs moisture, so it should be unpacked and used, and the remaining film should be used to seal the moisture-proof packaging immediately.

(2) During production, one or two colors can be used for preheating and dehumidification,

and the temperature is 60~90°C.

(3). It is best not to print nylon film when the relative temperature of the environment is greater than 85%.

(4). The printed BOPA should be immediately transferred to the next process for compounding. If the country cannot be compounded immediately, it must be sealed and packaged. The storage time is generally not more than 24 hours. It is best to store the compound heating chamber.

(5). Printing tension and printing pressure are appropriate.

#### **4. K coated film packaging bag**

Key points of K coating film printing: Because the thickness uniformity of K coating film is not very good, whether it is roll coating or spraying, the surface is uneven, and the PVDC is rigid and brittle, so the printing tension and printing pressure should not be too high during printing. Large, difficult to overprint, poor ink transferability, easy to spot dots (part of the dots are lost) when printing shallow screens, and a higher hardness press roller is required for printing. In addition, it is selective to solvents. Improper use of solvents may dissolve the layers. The printed film has a large solvent residue and is easy to stick. Therefore, special attention should be paid to drying and cooling.

#### **5. Matting film packaging bag**

The printing of matting film packaging bags can be printed on the glossy surface using OPP technology, but because the matting layer on the surface cannot withstand high temperatures, the drying temperature needs to be controlled.

#### **6. Pearlescent film packaging bag**

Pearlescent film packaging bags are printed with surface printing ink, and the surface printing ink with good transparency should be selected as far as possible. The heat-shrinkable film should be printed at a very low drying temperature, and a special heat-shrinkable ink should be selected (the printed ink should be able to shrink by heat

without falling). If the PVC heat-shrinkable film also considers the solubility of the solvent to the film.

### **7. CPP, CPE packaging bags**

When printing unstretched PP and PE packaging bags, the tension is very small, and the overprinting is more difficult. The deformation of the printing should be fully considered when designing the pattern.