

## **Technical Data Sheet**

### **Product Identification:**

ADHESION PROMOTER (ORGANIC PHOSPHATE-BASED TITANATE)

### **Product Name: ADP 100**

ADP-100 is specially developed, keeping in mind the improved adhesion and bond strength requirements for Solvent-based Flexo & Gravure Inks employed for surface printing and lamination-based printing and packaging requirements. Special attention has been provided to the long-term stability, in terms of discoloration and viscosity of the printing inks, a problem faced with other organic titanates of this class. This product improves the adhesion and bond strength of NC-PU & NC- Polyamide-based inks with various ulmic (including metalized) substrates. It also initiates cross-linking of certain resin components, thereby enhancing to a certain extent, the water and heat resistance characteristics of appropriately formulated solvent-based printing inks. Due to these properties, ADP-100 becomes an essential additive for certain grades of Flexo and Gravure solvent-based inks.

### **The use of organo-titanates provides benefits such as:**

- Improved adhesion of the inks to the selected substrate.
- Improved water resistance and to a certain extent chemical resistance.
- Higher lamination and bond strength.
- No release of Acetyl Acetonate – banned (regulatory issues) in certain countries.
- Faster curing/cross-linking of the resin/polymer.

**END USE: Advantages of using ADP-100:**

ADP-100 is designed especially for printing of carry bags, bread bags, shopping bags, snack food, and frozen food packaging, etc. NC/PU or NC/PA film-forming resins normally provide acceptable film strength after the solvent is evaporated. Titanates will upgrade the solvent resistance or heat resistance to the next level, along with improved adhesion to the substrate and superior bond strength. Therefore, graphical print can last longer under difficult conditions such as a frozen environment. The substrate has to be corona treated to 38 dynes or above before printing. The titanium phosphate ester complex is listed for non-food contact printing inks. The unique combination of titanate and phosphate ester properties brings the flexible printing industries more possibilities to promote their products.

**Physical & Chemical Properties:**

Specification/Property	Value
FORM	LIQUID
COLOUR	COLOURLESS TO LIGHT YELLOW
TiO2 CONTENT	8.5 - 9.0
ODOUR	CHARACTERISTIC SOLVENT ODOUR
BOILING RANGE	82 DEGREES C - 117 DEGREES C
FLASH POINT	12 DEGREES C
SPECIFIC GRAVITY	1.00 @ 30 DEGREES C
VISCOSITY IN B-4 FORD CUP @ 30 DEGREES C.	16 TO 20 SEC.
SOLUBILITY IN WATER	NOT MISCIBLE