SunTronic Aqueous Silver Flexo Ink
AFT6700

Product Description

SunTronic Aqueous Silver Flexo Ink AFT6700 is a water-based silver conductive ink designed for the production of printed antenna for radio frequency identification (RFID), conductive interconnects, and printed circuitry via flexographic printing.

AFT6700 is appropriate for paper and cardboard substrates and also water-receptive polymer films and provides a unique combination of high-speed printability, fast drying, and conductivity in an easy-to-use ink system. AFT6700 can also be printed on plastic films bearing a water-receptive primer.

Typical Properties

Pigment	Silver
Viscosity (Brookfield CAP)	4-6 Poise
Specific Gravity	2.01 g/cm^3
Sheet Resistivity	<15 (mΩ/sq/mil)
Volume Resistivity	<37.5 (μΩ.cm)
VOC by weight	<1.2 %

Processing and Handling Guidelines

Relevant Safety Data Sheet (SDS) should be read carefully prior to using this product.

PRINTING

AFT6700 is supplied as ready-for-use ink. Thinning is not recommended. Soft sediment may occur over time so thorough mixing prior to use is necessary.

The below details are only a guide, and the final choice of flexo printing specifications may depend on substrate and web speed. To achieve maximum coverage, high volume anilox rolls are recommended (80-120 lpi with 14-22 BCM). As an example, thickness of 3-4 microns can be achieved with a 160 line/inch and 20 BCM ART anilox (Praxair Technology, Inc.). Print tests have demonstrated that a soft flexographic plate such as Nyloflex ART (BASF) produces the highest quality graphics when used in conjunction with a medium-hard sticky back. A closed doctor-blade chamber is recommended.

Continuous anilox rotation is required throughout the print run to avoid ink drying on flexo plate and anilox roll. AFT6700 should not be allowed to dry completely on printing equipment. Prompt cleaning with water is highly recommended. Anilox rolls should be also cleaned using a sonicating bath after each print run.

DRYING

AFT6700 is a fast drying ink that will dry to the touch between 150-300 feet per minute using standard dryers found on flexographic presses. Maximum conductivity can be achieved with further drying, inline or offline, using infrared (IR) dryers, high capacity forced hot air ovens and/or heated mandrels. *Optimum drying conditions should be established for particular equipment used by the customer.*

STORAGE AND SHELF LIFE

When stored in sealed containers at temperatures between 4-30° C (39-86°F), AFT6700 has a shelf life of six months. Protect from freezing.

Sun Chemical Electronic Materials, 2445 Production Drive, St. Charles, IL 60174, USA; Tel +1 (630) 513-5348, Fax +1 (630) 587-5226
www.sunchemical.com