

Technical Data Sheet

Version. 4.02



Ultra Elite EFF170 Ink - Common UV/LED

Product Description

AT Inks, UV/LED curable inks are reactive Monomer/ Oligomer based inks in liquid form which converts into a film on exposure to UV light from metal halide lamps or LED lamps.

UV Inks manufactured by AT Inks are specifically designed based on the following aspects:

- a. Type of Lamp used
- b. Substrate to be printed on
- c. Flexibility of the printed image required

Based on these 3 aspects AT Inks offers UV curable inks and LED curable inks. We offer products for hard/rigid substrates, semi-flexible substrates and flexible substrates.

Available colors

- Cyan
- Magenta
- Yellow
- Black
- Light Cyan
- Light Magenta
- Light Yellow
- Light Black
- Flush Solution



Benefits and Advantages

AT Inks, Ultra Elite EFF170 Ink is a single ink that will work with both mercury UV lamp and LED Lamps 395 nm wavelength (8W or more).

AT Inks, Ultra Elite EFF170 ink is designed for flexible surfaces and can be folded after printing to upto 180°***, if required. These inks give good to excellent adhesion on flexible substrates as detailed in the compatibility chart. Ultra Elite EFF170 Ink is designed and long tested on Seiko* 508GS printheads and Ricoh Gen5 printheads. It can be printed on hard rigid surfaces also, however, adhesion to these substrates will need to be checked by the user for their specific applications.

Field of use

Ultra Elite EFF170 Inks are designed for hybrid machines and can be used in various printhead manufacturer's products such as Xaar*, Fujifilm Dimatix* (Spectra), Konica Minolta*, Toshiba*, Seiko* and Ricoh* by varying the temperature and other settings in the printheads. Please contact us to help you to convert your LED printers to work with our inks.

Features

- Will work with UV mercury as well as LED lamps
- Compatibility with a wide variety of substrates
- Very good outdoor resistance and fastness properties
- 100% Non-VOC
- Low odor
- Large color gamut
- High density color
- High stretchability

Technical Data Sheet

Version. 4.02



Compatibility with various substrates

| SUBSTRATES | ULTRA ELITE EFF170 | |
|---|--------------------|------------|
| | primer | w/o primer |
| Glass with Primer | ***** | |
| SS | ***** | * |
| Aluminium | ***** | * |
| Acrylic | ***** | ***** |
| Poly Carbonate | ***** | |
| Poly Styrene | ***** | ***** |
| Aluminium Composite Panel (Smooth Surfaces) with Primer | ***** | |
| Aluminium Composite Panel (Rough Surfaces) | ***** | |
| Medium Density Foam board, MDF (Rough Surfaces) | ***** | |
| Medium Density Foam board, MDF(Smooth Surfaces) with Primer | ***** | |
| Wood | ***** | ***** |
| PVC Door | ***** | |
| PVC Foam (Sun Board) | ***** | |
| PP/Sun pack | *** ## | |
| Coated Paper | *** | |
| One Side Adhesive Vinyl | ***** | |
| Star Flex (PVC Sheet) | ***** | |
| Backlit (PVC Sheet) | ***** | |
| Frontlite (PVC Sheet) | ***** | |
| Black Back (PVC Sheet) | ***** | |
| Polycarbonate (PC) Mobile Covers | ***** | |
| Polyurethane (PU) Mobile Covers | ***** | |
| ABS Mobile Cover | ***** | |
| Polyester (PET) Fabric | ***** | |
| Artificial Leather (Rexin) | *** | |
| Soft Leather | *** | |
| ***** = Good, *** = Fair, * = Poor, # = Poor with white under/over print, ## only if substrate corona treated | | |

- These substrate recommendations are based on the in-house Tape test and cracking test (only for flexible substrates) results.
- These are recommendations only and it is strongly recommended that you test adhesion properties in-house to verify the results. For any print film performance related query please contact AT Inks Technical team.
- Flexible inks (F016, F017, EFF170, GF057 & XF077) are not recommended with Solvent based over Coat.
- Do not print on reflected media like polished Stainless Steel plate, Mirror, Glass with black back, highly glossy and reflecting films etc. As it has the potential to reflect Stray UV/LED light onto the nozzle plate causing reliability issues.

Technical Data Sheet

Version. 4.02



Technical Specifications

| | |
|-----------------|--------------------|
| Viscosity** | : 6 - 25 cP |
| Surface Tension | : 22 - 35 Dynes/cm |
| Flash Point | : >95°C |

Standard Product Packaging

- 1L Bottle
- Other packaging sizes available

Shelf Life

12 months from the date of production, when stored according to the recommended storage conditions.

Ink Change over and Printhead Maintenance

Before change over, the printhead can be flushed using AT Inks “UV/LED Flush Solution” for best results. Failure to clean the printhead before changeover with the above flush may result in nozzle blockages. Contact us for ink change over procedure, if required.

Storage Conditions

Product should be stored in original packaging in a cool/dry place between 20°C and 28°C (68-82°F) and relative humidity of 30 – 60% (non-condensating) in a sealed bottle, away from direct sunlight and heat sources. Prevent freezing of this product. Use product within 15 days of opening the bottle, for best results.

Shipping and Handling

All personnel handling these products must wear gloves and eye protection as per local laws. After use, wash hands with soap and water. Should ink come in contact with clothes, remove clothing to avoid prolonged skin exposure. Should ink come in contact with skin, wipe off with a clean, dry absorbent cloth and wash area with soap and water. Dispose containers and ink waste as per local and federal regulations. For additional safety data, please refer to SDS.

* Trademark of respective companies.

** Viscosity at room temperature.

*** Depends on substrates compatibility.

- All trademarks mentioned are the property of their respective owners and have been mentioned herein for reference purpose only.

Disclaimer: The information provided in Technical Data Sheet (TDS) is based on AT Inks' internal laboratory testing data. Rex-Tone industries Ltd, AT Inks, their distributors and assigns shall not be liable to any loss or damage, including such loss or damage to any third party, caused by any use of the Products which is inappropriate or not in accordance with instruction for the storage and use of the products in this TDS or in a replacing or supplementary TDS issued by AT Inks. In any event AT Inks' liability is limited to a maximum of the price of the Product(s) or the cost of replacing such Products only. AT Inks is not, in any event, liable to any other loss or damage, including consequential damages.

All technical instructions about our products and their use, if spoken, written or through test trials are to the best of our knowledge. However, it should not be considered as an assurance for certain properties of products or their suitability for each application. It will be solely your responsibility for the selection and testing of the ink for specific applications.