

# Technical Data Sheet

Version. 1.01



## PENTA (Solvent based Digital Ink)

### Description

AT Inks, Penta Grade is the newest ink grade in the family of AT Inks.

It has been designed keeping in mind the demands of the market i.e. reasonable pricing, High Outdoor Fastness, Low Odor, Excellent Printing Quality, Dark Colors, Excellent Color Gamut and the use of One Ink formulation in multiple printheads with drop size greater than 6 pL. This Ink has wide printhead use, in our portfolio of Solvent Inks and works on almost all major printhead manufacturer products such as, FUJIFILM Dimatix\* (Spectra), Ricoh\*, Konica Minolta\*, Seiko\* and Xaar\* Please contact us for specific enquiries with regards to the settings required in your printers while using our Penta Grade Inks and we will give you a brief on how to use these inks in your particular printer with a compatible printhead.



### Benefits and Advantages

AT Inks, Penta Grade is especially designed for printers who have multiple machines in-house and want to work with only one ink. We have used high performance pigments in this formulation to provide you with High Outdoor resistance properties tested over 500 hours on QUV to confirm that the inks will last upto 1 years\*\*\* with acceptable fading and can be extended upto 3 years\*\*\* with good over lamination and the choice of the correct substrate quality and printing conditions.

### Field of use

AT Inks, Penta Grade is especially designed for Solvent Printing Machines, using almost any brand of printhead with dropsizes greater than 6 pL. It is a universal ink that should work on the majority of the printheads in the market. Specifically, this ink is tested in-house by us before despatch on the following printheads:

- Konica Minolta\* 512i
- Seiko\* 35 pL
- Fujifilm Dimatix (Spectra,\* Starfire\* 10 pL)

### Substrates

AT Inks, Penta grade can be printed on the following substrates to create vibrant images:

- Flex/Banner
- Backlite
- Self adhesive Vinyl/PVC films (monomeric, polymeric and cast PVC films)
- Tarpaulins
- Coated textiles
- Many PVC coated materials
- One way Vision

### Available colors

- Cyan
- Magenta
- Yellow
- Black
- Flush Solution

### Compatible Printheads

- Fujifilm Dimatix\*(Spectra) (SL, SM, SE, Nova, Galaxy, Polaris 15pL/35pL, StarFire 10pL/25pL, Emerald & Sapphire)
- Konica Minolta\* (512, 512i, 1024 & 1024i)
- Ricoh\* (Gen 4 & Gen 5)
- Seiko\* (SPT 35pL, 508 GS 12pL)
- Xaar\* (128, Proton & 1001)

### Features

- One ink for different Machines
- Good outdoor fastness
- Large Color gamut
- Low odor
- Bright, Vibrant colors
- Excellent printing reliability
- Works with multiple Printheads

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## Technical Specifications

Viscosity**	: 6 - 20 cP
Surface Tension	: 25 - 45 Dynes/cm
Flash Point	: > 70°C

## Standard Product Packaging

1L Bottle
5L Bottle

## 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 “Flush Solution” for best results. AT Inks, strong flush can also be used with proper instruction. Failure to clean the printhead before changeover with the above flush may result in nozzle blockages. For best reliability and trouble free performance AT Inks “Cleaning Solution” should be used to clean the printheads. Contact us for ink change over procedure, if required.

## Storage Conditions

Product should be stored in original packaging in a cool/dry place between 10°C and 35°C (50-95°F) and relative humidity of 30% – 60% (non-condensating), away from direct sunlight and heat sources.

## 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.

\*\*\*Outdoor life of the printed samples depends on various factors such as printing conditions, substrates, angle of incidence of light on the print, pollution, location of the print, city and country of use, etc. Conditions of use cannot be warranted and are the responsibility of the user.

**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.