# Series FT003



# Technical Data Sheet

# Pad and Screen Printing Inks

#### 1. APPLICATION FIELDS.

Versatile one or two component ink with excellent adhesion to tagless printing, specially formulated inks for natural, artificial woven and non-woven fabrics and on -

- Wool,
- Fleece,
- Denim,
- Cotton & Ribbed cotton,
- Nylon,
- Flock,
- Polyester,
- Corduroy,
- Poly blends,
- Sport/Stretch fabrics (Spandex<sup>®</sup>, Lycra<sup>®</sup>, Elastane etc.)
- Leather
- Latex rubber
- Footwear, and
- Hard goods.

# Special EO Inks for Pad printing on dark garments-

Pad printing of white on black or dark garments is always a challenge. With Farbatex® series, use of one or two strokes of EO(extra opaque) inks is sufficient to print these types of fabrics.

#### 2. CHARACTERISTICS:

This glossy, physically drying and chemical reactive printing ink exhibits good mechanical and chemical resistance, as well as a good flexibility. Farbatex® series tagless printing inks are the best choice due to excellent adhesion, high opacity, very low consumption, soft flexible feel and the high range of colors available.

#### The FT003 Series is -

OEKOTEX® ECO PASSPORT certified (certificate no -20.0.36790). The inks are ZDHC MRSL conformance Level 1. Please refer to certificate for more information.

Non-toxic, free from phthalates and BPA as well a PVC, cyclohexanone, Azo dyes and heavy metals.

The FT003 series can be printed with fast drying units up to 2000 pieces/ hour in pad and screen printing machines.

A special product test is recommended prior to production. Even more importantly for intimate apparel, ink tags are NAMSA-confirmed to have zero skin irritation. Garments printed with Farbatex® pad printing inks can survive upto 50 rugged and hard industrial washes without cracking and fading.

#### 3. RANGE OF COLOURS.

The basic ink mixing system consists of 10 basic colours and may be used for the mixing of a wide colour shade range. Field proven mixing formulations exist for Pantone<sup>®</sup>, HKS<sup>®</sup>, RAL<sup>®</sup>, NCS<sup>®</sup>, TPX, PCX, and fluoroscent colors etc.

#### 3.1 Basic colours:

### **ECO-PASSPORT certified by OEKO-TEX®**

| FT003 010   | , | Lemon yellow  |
|-------------|---|---------------|
| FT003 011   |   | Medium yellow |
| FT003 015   |   | Bright orange |
| FT003 020   |   | Bright red    |
| FT003 024   |   | Dark pink     |
| FT003 031   |   | Medium blue   |
| FT003 036   |   | Violet blue   |
| FT003 041   |   | Light green   |
| FT003 065EO |   | Opaque black  |
| FT003 160EO |   | Opaque white  |

# 3.2 Bronze Colours:

| Silver (1K) | FT003-679-050 |
|-------------|---------------|
| Gold (1K)   | FT003-675     |

## 4. ADDITIVES.

# 4.1 Thinner:

Prior to production, the printing ink has to be adjusted to the printing viscosity by the addition of thinner.

Addition Thinner 25-35%

Thinner, slow Retarder S-03 600-1800 parts/hour
Thinner, standard Diluant M-02 1800-2800 parts/hour

Thinner, fast Diluant F-01

2800-5000 parts/hour

The above statements are accurate to our best knowledge and belief. However, due to the great number of possible influences during the manufacture of the substrate and the variation in the application process we suggest that suitability testing take place under actual conditions before production. No legally binding guarantee of certain properties or of the suitability for a definite application purpose can be derived from the above information.

# Series FT003



# 4.2 Screen printing process:

For screen printing we will recommend to use the thinner retarder S-03.

#### 4.3 Hardener:

The mixing addition is approx. 10 %. At 21° C. A pot life of approximately minimum 48 hours can be achieved.

Hardener, standard (addition up to 20 %) 1000H

Please note that the final chemical and physical resistance as well as the maximum adhesion of the ink film will only be achieved after 36 hours at 21°C.

During processing and drying of the printed ink film the temperature should not be lower than 15°C. Otherwise the chemical cross linking is stopped.

Also avoid high humidity for several hours after printing as the hardener is sensitive to humidity. While using hardener please note that multi-colour jobs have to be printed during 36 hours. The completely dried ink layer cannot be overprinted any-more.

# 5. Processing Instructions.

# 5.1 Stencil/ Cliché/ Pad/ Printing Equipment:

The inks of Farbatex® series can printed with all commonly available screen printing meshes. They can be used with all screen printing machines with screen printing stencils currently used for industrial applications.

During the pad printing application the inks can be used in open as well as closed systems.

However, it has to be noted that type (screen) and etching depth of the cliché, shape and hardness of the pad, the adjustment of the ink (addition of thinner and/or retarder) as well as printing speed may influence the printing result.

# **5.2 Drying Conditions:**

At 21°C the inks of Farbatex® series will be dry-to-handle within 30-35 seconds.

It is touch-dry in 20 minutes at room temperature. While adding hardener to the ink, cross linking after application will take approximately 36-72 h (at 21°C). Elevated temperature can reduce the curing time. To accelerate the

ink drying the use of hot air blower units or infrared lamps is recommended.

In order to avoid, that the printed parts stick together, cooling section must be installed after heat treatment unit.

#### 5. SHELF LIFE:

A shelf life of 12 months is guaranteed when storing the inks at 21°C in the original packing container, excluded bronze colours (9 month) and effect inks (6 month). At higher storage temperatures the shelf life will be reduced.

#### **6. PRECAUTIONS:**

For further information on the safety, storage and environ mental aspects concerning these products, please refer to the Material Safety Data Sheet (MSDS).

Additional technical information can be obtained from our Technical Application Department.



#### ZDHC MRSL conformance Level-1

Please scan the QR code to check the validity of ECO-PASSPORT by OEKOTEX® certificate

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