

# Technical Data Sheet

## Dokumental® TS 48xx T-Shirt Marker Inks

### Permanent T-Shirt Marker Inks For Dark Fabrics

#### General Information

The inks of Dokumental® TS 48xx series are water-based and withstand washing procedures up to 30°C. They can be used in valve action markers only!

#### Suitable Surfaces

Textiles

#### Applicable Standards & Regulations on Request

#### Physical Data

Type	Colour	Viscosity at 20°C mPa s ± 2.0	Surface tension mN/m ± 2.0	Density at 20°C g/cm <sup>3</sup> ± 0.02	pH-Value ± 1.0
Dokumental® TS 4893.2	gold	12.0	37.0	1.09	8.5
Dokumental® TS 4892.1	silver	11.3	36.1	1.07	8.3

#### Suitable Components

Use valve action markers only!

Do not use polystyrene, ABS or polyamide!

Nibs: polyester, acrylic with high porosity

Barrels, Caps, Plugs: polypropylene, polyethylene

It is mandatory to approve the compatibility of the ink and the components as well as the performance of the writing system.

Before use of our product the filling station has to be maintained and cleaned carefully. The inks are sensitive to any kind of contamination (e.g. chemical or microbial contaminations). Cross-contamination of the inks may lead to a colour mismatch or will even lead to a defective marker or shorter shelf life.

The inks contain biocides to prevent microbial growth, but for best protection we additionally recommend to ensure best hygienic conditions in production areas as well as cleanliness of all marker components.

#### Storage, Handling & Transportation

Store our product frost protected and avoid direct sunlight. The recommended storage temperature is between 10°C and 30°C. Storage temperatures of above 30°C for several days bear the risk of a reduced shelf life of the ink.

Mix inks well before use.

The shelf life of the inks in original sealed containers is one year.

Inks should be stirred during filling process to avoid sedimentation in the storage tank of the assembly machine.

Markers should be stored horizontally.

Ink-flow tests should be carried out on fabrics and not on paper.

#### Fixing of the inks:

1.) after application on fabrics the ink shall dry for 12 h.

2.) After drying iron the reverse side of the fabric (temperature as recommended for the fabric used).

#### Packaging

standard packaging: 20kg plastic canister (further packaging units on request).

#### Produced by

DOKUMENTAL GmbH & Co KG

Wöllnerstraße 26

D-67065 Ludwigshafen

Phone: +49(0)621/37702-200

Fax: +49(0)621/37702-391

Mail: [info@dokumental.de](mailto:info@dokumental.de)

[www.dokumental.de](http://www.dokumental.de)