# ® TUBOBLANC HA

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|---|---|
| **Character** | Optical brightener for cellulose and polyamide fibres, wool and silk |
| **Chemical Character** | Stilbene derivative |
| **Appearance** | Light brown to brown liquid |
| **Ionic Character** | Anionic |
| **pH Value of a 10 % Solution** | 9.0 ± 0.5 |
| **Specific Weight at 20 °C** | ~1.1 |

**Stabilities**

| | in the liquor | on the fibre |
|---|---|---|
| hypochlorite bleach | unstable | very good |
| chlorite bleach | unstable | unstable |
| peroxide bleach | very good | very good |
| hydrosulphite bleach | very good | very good |
| steaming stability | - | very good |
| fixation stability | - | very good |
| acid stability | unstable below pH 5.0 | unstable below pH of 5.0 |
| alkali stability | very good | very good |
| stability to water hardness | good | very good |

The product is very sensitive to frost; temperatures around the freezing point cause irreversible changes.

The above given values are product describing data. Please consult the 'delivery specification' for binding product specifications. Further data about product properties, toxicological, ecological data as well as data relevant to safety can be found in the safety data sheet.

## Properties

TUBOBLANC HA is a high affinity brightener with a neutral to slightly bluish white shade. Its absorption capacity covers a temperature range of 20 - 130 °C.
Optical brighteners are very sensitive to heavy metal ions, so that even small amounts of heavy metal ions may impair the whiteness degree. This can be avoided by adding a sequestering agent, e. g. HEPTOL ESW.

**® =registered trade mark**

## Application Technique

### Diluting Instructions

TUBOBLANC HA is soluble in cold and warm water at any ratio. The diluted solutions or prepared stock solutions should be protected from direct light radiation.

### Application Fields

Due to its affinity behaviour TUBOBLANC HA is mainly used for discontinuous long liquor procedures.

### Application Examples

Cellulose fibres:

Exhaust method:

0.2 - 1.0 % TUBOBLANC HA

30 min at 50 °C
rinse warm

Application in the peroxide bleach:

The good peroxide stability facilitates a one-bath bleach and optical brightening:

0.5 % CONTAVAN GAL
1.0 % FELOSAN NFG
2.0 % NaOH 100 %
5.0 - 8.0 % $H_2O_2$ 35 %
0.2 - 1.0 % TUBOBLANC HA

60 min at 98 °C
rinse hot and cold

Polyamide fibres

Exhaust method

0.5 - 1.5 % TUBOBLANC HA
0.5 - 1.0 % FELOSAN NFG
0.3 - 0.5 % NEUTRACID NVM 200

pH 5.0 - 5.5
30 min at 98 °C
rinse hot and cold

Application in the reductive bleaching bath:

0.5 - 1.5 % TUBOBLANC HA
0.5 - 1.0 % FELOSAN NFG
3.0 g/l reducing agent based on hydrosulphite

30 min at 60 - 98 °C
rinse hot and cold

Pad-Steam procedure (possibly with a pre-wash)

5.0 - 20.0 g/l TUBOBLANC HA
0.5 - 1.0 g/l NEUTRACID NVM 200
3.0 - 5.0 g/l FELOSAN NFG

pH 5.0 - 5.5
impregnate
liquor pick-up: 60 - 80 %
steam for 2 - 5 min
rinse hot and cold

Wool and silk

Wool and silk are optically brightened after the peroxide bleach in the reductive bleaching bath.

0.5 - 1.5 % TUBOBLANC HA
3.0 g/l reducing agent based on hydrosulphite

30 min at 60 °C
rinse warm

Cellulose / Polyamide

A white shade with similar components of the two fibres is achieved in the reductive afterbleach.

0.2 - 1.0 % TUBOBLANC HA
3.0 g/l reducing agent based on hydrosulphite

30 min at 60 °C - 80 °C
rinse hot and cold

Cellulose / Polyester

For the optical brightening of PES/cellulose fibre blends different procedures can be used:

1. Brightening of the PES share according to the pad-therm procedure with

5.0 - 8.0 g/l TUBOBLANC EBF

or in the chlorite bleach with
0.3 - 0.8 % TUBOBLANC EBF

or in the exhaust method with
0.3 - 0.8 % TUBOBLANC EBF

Brightening of the cellulose fibre in the peroxide bleach or reductive afterbleach with

0.2 - 0.6 % TUBOBLANC HA

2. One-bath brightening of the polyester and cellulose fibre in the peroxide bleach with

0.2 - 0.6 % TUBOBLANC HA and
0.3 - 0.8 % TUBOBLANC EBF

Cellulose / wool or silk

Normally these fibre blends are tinted white in the reductive bath after the peroxide bleach. In this procedure both kinds of fibres are brightened.

0.2 - 1.0 % TUBOBLANC HA
3.0 g/l reducing agents based on hydrosulphite

30 min at 60 - 80 °C
rinse hot and cold

Application in printing

TUBOBLANC HA can be used in printing for the brightening of discharge prints and for producing clear, brilliant pastel shades.

Application concentration:

0.5 - 1.5 g TUBOBLANC HA per kg print paste

**We reserve the right to modify the product and technical leaflet.**

**Our department for applied technique is always at your service for further information and advice.**
Our technical advice and recommendations given verbally, in writing or by trials are believed to be correct. They are neither binding with regard to possible rights of third parties nor do they exempt you from your task of examining the suitability of our products for the intended use. We cannot accept any responsibility for application and processing methods which are beyond our control.

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