

# Golden ULTRAVIOLET PA

UV-absorber for fabrics made of cellulose and polyamide

## Uses:

- Golden ULTRAVIOLET PA is a reactive UV-absorbing agent for cellulosic and polyamide fibers and blocks the permeability of fabrics by UV radiation.

## Benefits:

- Golden ULTRAVIOLET PA is blocking the UV-radiation on cellulosic (cotton) and polyamide fabrics by reacting with the hydroxyl groups of cellulosic fibers and with the free amino groups of polyamide fibers.
- Can be applied by padding and in exhaust process.
- UV absorbing effect with good wash-and light fastness.
- Store under cool conditions (from 5 to 25°C) in closed drums, effectiveness may be reduced if stored at higher temp.

## Product Properties:

<b>Appearance</b>	Pasty white.
<b>Chemical character</b>	Heterocyclic formulation.
<b>Ionic character</b>	Anionic.
<b>pH (such as)</b>	≈ 6
<b>Specific weight (20°C)</b>	≈ 1.25 g/cm <sup>3</sup>
<b>Dilutions</b>	Readily diluted with cold water.

## Application – Recipe Recommendations:

Golden ULTRAVIOLET PA can be applied in continuous and exhaust processes on cellulosic and polyamide material in yarn, woven and knitted form. In case the product is used in higher dosage it is recommended to apply Golden ULTRAVIOLET PA after dyeing as it can reduce the color yield of reactive, direct and acid dyes. Golden ULTRAVIOLET PA does not change the shade of dyes and has little to no influence on optical brighteners. The UV absorbing effect shows a very good wash and light fastness and the fastness properties of the dyed goods are not impaired.

General recommendation is 1 to 4% Golden ULTRAVIOLET PA with lower amounts for dark shades and higher amounts for optical brightened material.

## Application for cellulosic (cotton) material

### Isothermal exhaust process

- 60-80 g/L Glauber`s salt (preferably).
- x % Golden ULTRAVIOLET PA.
- x + 2 % Soda ash (Na<sub>2</sub>CO<sub>3</sub>).
- Treatment temp. 25-40°C.
- Liquor ratio as low as possible as substantivity of Golden ULTRAVIOLET PA is medium.
- Salt is added first, followed by Golden ULTRAVIOLET PA after 5 minutes and after another 10 min. soda ash in portions; fixation time about 30 to 40 min.
- Hot and cold rinsing:
- Optical brightening can be carried out directly after rinsing, majority of electrolytes should be removed.

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## Pad Batch Application

- Application at the same time as the reactive dyes is possible with Golden ULTRAVIOLET PA.
- x g/L Golden ULTRAVIOLET PA.
- 2.5 + (0.25 . x) g/L Soda ash (Na<sub>2</sub>CO<sub>3</sub>).
- Bath liquor temperature should be kept around 20-25°C.
- For maximum stability Golden ULTRAVIOLET PA and soda ash should be prepared separately, cooled down and subsequently added to the padding liquor using mixing equipment.
- Pick-up about 60 -80 %.
- Batching 1 to 2 hours at room temperature.
- Rinsing hot and cold.

## Pad Steam Application

- x g/L Golden ULTRAVIOLET PA.
- 3.0 + (0.1 . x) g/L Soda ash (Na<sub>2</sub>CO<sub>3</sub>) or sodium bicarbonate.
- Bath liquor temperature should be kept around 20-25°C.
- Sodium bicarbonate provides good bath stability; in case of soda ash a mixing unit is recommended.
- Pick-up about 60-80 %.
- Treatment steaming time 30 to 40 sec at saturated steam conditions.
- Rinsing hot and cold.

## Pad Thermofix Application

- x g/L Golden ULTRAVIOLET PA.
- 3.75 + (0.125 . x) g/L of Soda ash (Na<sub>2</sub>CO<sub>3</sub>) or sodium bicarbonate
- y g/L of Urea.
- Bath liquor temperature should be kept around 20-25°C.
- Sodium bicarbonate provides a good bath stability, in case of soda ash a mixing unit is recommended.
- When using minimal 30 g/L Golden ULTRAVIOLET PA it is recommended to add 50 to 80 g/l urea to enhance fixation rate.
- Pick-up about 60-80 %.
- Treatment time 2 to 3 min. at 130°C or 1 to 2 min in case of previous drying step.
- Rinsing hot and cold.

## Application for polyamide material

### Pad Steam Application

- x g/L Golden ULTRAVIOLET PA.
- 20 g/L of Common salt or Glauber salt.
- Bath liquor temperature should be kept around 20-25°C.
- Pick-up about 60-80 %.
- Treatment steaming time 5 to 7 min. at saturated steam.
- Rinsing hot and cold.

### Exhaust Application

- x g/L Golden ULTRAVIOLET PA.
- x + 2 % of Soda ash (Na<sub>2</sub>CO<sub>3</sub>).
- Set bath with amount of Golden ULTRAVIOLET PA and regulate pH just below pH 4 (or using acid donor product).
- Raise temperature to 98°C at a heating rate of 1.5 to 2°C per

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minute.

- Treatment time 15 to 30 min at 98 °C.
- Rinsing hot and cold.

For data of security, ecological and toxicological, see the Safety Data Sheet (SDS).

*Note: Given the variety of substrates and processes applications, the information here provided with fidelity, should be understood as a tool for guidance, therefore we cannot be responsible for any damages resulting from in inappropriate use. The data contained in this bulletin are based on current knowledge and current applications of our products performed. Additional information may be obtained from our technical department. Review: 09/16/2015.*