INDOGUARD™ PFP
Phenolic yellowing Preventer

INTRODUCTION

Phenolic yellowing is the discoloration of textiles caused by the action of oxides of nitrogens on yellowable phenols. Yellowing mostly occurs when storing fabrics or garments in the warehouse. Plastic packaging material, like polybags, contain BHT (butylated hydroxy toluene). This is an antioxidant that prevents degradation of the plastic. This BHT gets transferred to the fabric, also from cartoon boxes, a phenol (derivate) can be carried over to the textile. It can react with the nitrogen oxide (NOx) in the air and forms nitrobenzenes or quinone (or chinone), which is a yellow chemical substance. To avoid this yellowing preventers are applied on the fabric.

Heat-setting of wet fabric will also cause increased yellowing. Direct heated stenters produce NOx fumes by oxidation of nitrogen. These fumes are attacking the oils and the fibres during the setting operation, thereby causing yellowing. Moulding of fabrics (viz., women's sports bra) leads to yellowing.

INDOGUARD™ PFP is a low foaming product to prevent phenolic yellowing of lycra, polyamide, polyester, cotton and their blends during storage, packed in polyethylene bags or cardboard cartons. Indoguard PFP prevents phenolic yellowing on different substrates in presence of conventional softeners. Indoguard™ PFP can be applied by padding and by exhaust method.

FEATURES

- Indoguard™ PFP reduces the tendency of phenolic yellowing which can develop during storage of light textiles in synthetic wrappings. Phenolic yellowing is caused by BHT (2.6-dibutyl-hydroxytoluene) which is partially used as anti-oxidation agent in such wrappings.
- It is basically applied on polyamide but can also be used for cotton.
- The application amount depends on the kind of fibre and its tendency to turn yellow.
- It is in form of a liquid at a low viscosity and can well be dosed at temperatures below 20°C.
- Prevent shade change or yellowing caused by packaging materials or Nitrogen Oxide exposure.
- It can be applied by exhaust and padding.

PROPERTIES

Appearance	Clear Yellow Brown Liquid
pH (1%)	6.0-7.0
Ionic nature	Anionic
Stability	Stable to dilute acids and dilute alkalis
Compatibility	Compatible with anionic and nonionic products.

DILUTION INSTRUCTIONS

Indoguard^{TM} PFP is miscible with cold and hot water to any ratio.

APPLICATION

Exhaust method
Application is possible in the peroxide bleach, reductive bleach, brightener bath, rinsing baths as well as softener bath.

Application amount:

1.0 – 4.0 % - **Indoguard PFP**

On machines with high turbulences we recommend the addition of 0.3 – 0.5 % OSA SID Conc in order to avoid foam problems.

Application on the padding mangle

Application is normally done together with the softener or the brightener but compatibility of the products has to be checked prior to usage.

Application amount:

10.0 – 40.0 g/kg **Indoguard^{TM} PFP**
pH < 5.5 with Indoacid CN Liquid
The tendency of phenolic yellowing also very much depends on the pH value of the fabric. For this reason, the pH value is to be adjusted to < 5.5, if the product is applied in the bath by padding mangle.

STORAGE AND HANDLING

Precautions for safe handling	Do not eat, drink or smoke while handling the product.
Conditions for safe storage	Store in a cool, dry & ventilated area away from the sources of heat.
Shelf Life	6 months.

Note: Kindly refer SDS for further information on Safety precautions, Storage & Handling.

CORPORATE OFFFICE

Khatau House, PlotNo.410/411, Mogul Lane, Mahim (West), Mumbai–400016, India
Tel: 91-22-61236767 Fax:91-22-61236718
Email: contact@indokem.co.in
Website: www.indokem.co.in

WORK

Plot No. W (128), Chikhloli MIDC, Ambernath (West), Pin code-421 505, Maharashtra, India

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The information and recommendations presented here were based on our general experience and correspond to the state of our knowledge. They are intended to service as non-binding guidelines and must be adapted to the prevailing conditions. We cannot accept liability for any injury, loss or damage resulting from reliance upon such information.