

Oxystab series

Oxystab OPS

Stabilizer for hydrogen peroxide bleaching of cellulose and wool.

INTRODUCTION

The role of the stabilizer is to control or regulate bleaching effects, to act as buffers, sequestrates and in special cases, enhancing performance of the surfactant used in the bleach bath.

In scouring baths, high pH and temperature lead to the decomposition of peroxide bleaching liquor and degradation of cellulose. The uncontrolled decomposition of hydrogen peroxide gives rise to OH radicals. These radicals attack the cellulose fibre starting with oxidation of the hydroxyl groups and eventually ending with the cleavage of the cellulose molecules, decreasing the degree of polymerization. This reaction is catalyzed by presence of heavy metals such as iron, manganese, copper and cobalt resulting in pin holes. In order to inhibit these reactions, **Oxystab OPS** has to be used.

Oxystab OPS is a special product for stabilizing alkaline hydrogen peroxide bleaching baths with softening and cleaning properties. This is particularly advantageous when bleaching cellulosic fibres in the form of loose fibres, yarn or piece goods in package/cheese machines, jigs or winches by conventional methods.

FEATURES

- No silicate deposits on the goods (especially with wound packages it facilitates subsequent winding and reduces the number of broken threads)
- No silicate deposits in the machines
- The elasticity of bleached knit goods remains virtually unchanged
- Is effective in hard and soft water
- Excellent stabilizing effect even at bleaching temperatures near the boil
- Ecological as it is free from APEO and silicates.

PROPERTIES

Appearance	White liquid dispersion
pH	approx.6.5
Ionic character	Weakly Anionic

STALWART ADVANCE MATERIAL INDS

Application & Business Center, B-120, Ansa Industrial Estate, Saki Vihar Road, Sakinaka, Andheri (E), Mumbai – 400 072.
email: sales@stalwartadvance.com; web: www.stalwartadvance.com; Customer care:1800 121 3497

Compatibility with	
Cationics	Average
Anionics	Good
Non-ionics	Good
Stability to	
hard water	Good
electrolyte	Good (up to 40 g/l)
temperature	Good

SAMPLE RECIPE FOR PRETREATMENT OF KNITS

Scouring & Peroxide bleach (liquor ratio 1:10)

	Add chemicals preferably at 40°C
0.7 – 1.0 ml/l	Neoquest HRS
0.8 – 1.0 ml/l	Evosurf NDC
0.75 – 2 ml/l	Lubatex ACA
3 – 5 ml/l	caustic soda 36°Bé
3 – 6 ml/l	hydrogen peroxide 35%
0.3 – 0.8 ml/l	Oxystab OPS
	Heat to 98°C.
	Treat at the boil for 45 – 60 minutes
	Cool to 70°C.
	Drain
	Rinse hot for 10 – 20 minutes at 80°C.
	Drain
1ml/l	Neutralize with
	Neutracid AAS for 15 – 20 minutes at 40-60°C.
	Drain
	Remove residual peroxide with
0.7 - 1.0 ml/l	Protozyme CPK for 15 - 20 mins at 40-60°C & pH 6-8.
	Drain.

SCOPE OF APPLICATION

- i) **Bleaching of cellulosic fabrics on package machines, jigs, winches and jets.**
- | | | |
|--------------|-------------------------|----------------------|
| 0.25-0.5 g/l | Oxystab OPS | |
| 1-2 g/l | NaOH 36°Bé | |
| 2-4 g/l | hydrogen peroxide 40% | 1-2 hours at 85-90°C |
| | Liquor ratio 1:4 – 1:15 | |

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ii) Bleaching cotton jersey on the winch

0.5 g/l	Perawet WAA	
0.25-0.5 g/l	Oxystab OPS	
2-4 g/l	NaOH 36°Bé	
3-6g/l	hydrogen peroxide 40 vol%	45-60 mins at 85-95°C

iii) Bleaching cotton woven fabric on the jig

Desized and/or scour boiled cotton woven fabric can be bleached on the jig with the following recipe

0.3 g/l	Perawet WAA	
0.5-1 g/l	Oxystab OPS	
1-3 g/l	NaOH 36°Bé	
3-5 g/l	hydrogen peroxide 35 vol%	8-10 ends at 90°C

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 Storage & Handling.

Oxystab is a registered trade name of Stalwart Advance Material Inds.

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.

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