LUMINOPHORE BA-B 1000%

Optical Whitener For Cellulosic Fibres & Polyamides

Luminophore BA-B 1000% is a highly substantive optical whitening agent for all natural, regenerated cellulosic fibres and polyamides. It is applied in hot alkaline liquors and gives particularly strong and brilliant white effects on cellulosic fibres. In the case of polyamide the pH should be adjusted to 4.5 with dilute acetic acid.

Appearance Luminophore BA-B 1000% is a Bluish Powder.

Solubility Luminophore BA-B 1000% is miscible with water in all proportions.

Affinity The product exhausts from neutral and alkaline baths within the temperature range of 20-120°C. Alkaline liquors above 60°C provide the best exhaustion and development conditions. Its affinity is such that even in liquors without electrolytes often no salt additions are necessary, for eg., in a closed machine.

Regenerated cellulosic fibres do not normally have such good affinity for optical whitening agents as cotton but the product gives a very good yield on them. An addition of 2 g/l glauber's salt anhydrous gives the optimum effect.

The product has good affinity for polyamide 6 above 60°C particularly in the stabilised hydrosulphite bleach bath. Blends of cellulosic and polyamide 6 fibres can therefore be whitened in one bath.

Shade The shade of white effects obtained in hot liquors is neutral white.

Fastness Stability The fastness of the white effect and the stability of the product are listed in the table at the end of the circular.

The excellent wet fastness and very good stability in peroxide bleach baths are particularly interesting features. When the white effects are acidified the shade may tend to yellow but this can be remedied by a weak alkaline rinse. Very slight yellowing may occur in resin finishing, depending on the catalyst and the curing conditions, but this can also be corrected by a weak alkaline rinse.

Hard water has no adverse influence on the white effect. In fact it produces a quicker and more complete exhaustion of the bath. However, iron and, to a far less extent, copper compounds impair the white effect and treatment may be carried out on machines of these metals only if the surfaces have rendered inert.

If there is any risk of iron or copper compounds reaching the whitening bath it is advisable to add a chelating agent. Solutions of the product are sensitive to light. Stock solutions must, therefore, be kept away from light.

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Application

IN BLEACHING: The product is extremely suitable for use in peroxide bleaching (under normal and HT conditions) and in scouring. Optimum levelness, brightness and purity of the white effect are obtained in hot alkaline baths above 80°C.

If brightening is to be carried out on the pad mangle or by exhaustion at temperatures below 60°C, the product should be used.

IN DYEING:As the product has good fastness properties and a full yield at high temperatures it may also be used with dyes to produce brighter pastel shades.

SOFTENING: Non-ionic and cationic softeners are particularly suitable for goods after they have been optically whitened.

Cationic softeners weaken the white effect slightly but this can usually be compensated by increasing the amount of Optical Whitening Agent.

Stripping

To remove the slight brownish shade which occurs and to avoid any subsequent yellowing it is advisable to give the goods a final mild peroxide bleach containing an anionic detergent. If the goods are to be optically whitened again most of the Luminophore brands for cellulosic fibres can be added to this bath.

Complete removal of the white effect can only be obtained by a chlorite bleach.

METHODS OF APPLICATION :

Peroxide Bleach -

Luminophore BA-B 1000%	%	0.20 - 0.80 owf
Temperature	°C	85 -120

applied under normal bleaching conditions.

Sodium Hydrosulphite Bleach -
(CELLULOSE/POLYAMIDE 6 BLENDS)

Luminophore BA-B 1000%	%	0.1-0.8
Sodium Hydrosulphite	g/l	2-3
PH	pH	7-8
temperature	°C	80-90
time	min.	40-60

Scouring -

Luminophore BA-B 1000%		
Glauber's salt anhydrous (if necessary)	g/l	2
pH	pH	7-11
temperature	°C	60-95
time	min	30-45

Dye-bath -

Luminophore BA-B 1000%	%	0.02-0.80 owf

If the whitening has been carried out at too low a PH, the weaker white effect obtained can be noticeably improved by an alkaline after treatment.

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FASTNESS PROPERTIES : -(Luminophore BA-B 1000% on the fibre)

light	3-4
washing:test (60°C)	5
washing:test (95°C)	4-5
chlorinebleaching mild	3-4
chlorine bleaching severe	3
chlorine bleaching milk	1
peradoxide bleaching	4
perspiration histidine acid and alkaline	5

STABILITY : (Luminophore BA-B 1000% in the bath)

hydrogen peroxide	very good
sodium hydrosulphite	very good
sodium chlorite	poor
hydrochlorite pH 11	poor
acid	poor (precipitate)
alkali	very good

The 'standard white' is the maximum white effect obtained on cotton fabric with the product in a peroxide bleach bath. Change in shade is assessed by white scale comparable with the grey scale.

Light fastness is measured upwards from 1 to 8, other fastness properties from 1 to 5.

Fastness properties may differ somewhat according to the pretreatment, the method of application and the degree of whitening.

(Our publications are intended to render information on the best possible application of our products. Recommendations are given according to our best knowledge and belief, but without engagement.)

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