

Technical Data Sheet**ALBAFIX[®] ECO fixative****DYEING AUXILIARIES****USES**

Aftertreating dyeings produced with reactive and direct dyes on cellulosic fibers by exhaustion or padding. Aftertreating reactive dye prints on cellulosic fibers.

Characteristics	Benefits
<ul style="list-style-type: none">Contains no formaldehyde or zinc.	<ul style="list-style-type: none">No contamination of goods, effluent or environment (Oeko-Label).
<ul style="list-style-type: none">Markedly improves the wash fastness and other wet fastness properties of dyeings with direct dyes.	<ul style="list-style-type: none">Excellent water, severe perspiration and hot pressing fastness and improved fastness to washing.
<ul style="list-style-type: none">Applicable in conjunction with resin finishing of direct dyeings.	<ul style="list-style-type: none">Very good wash fastness.
<ul style="list-style-type: none">Protects dyeings and prints produced with reactive dyes against hydrolysis and thermo cracking.	<ul style="list-style-type: none">No impairment of fastness properties after heat treatment or in storage under adverse conditions.
<ul style="list-style-type: none">Migration protection for reactive and direct dyes.	<ul style="list-style-type: none">Prevention of dye migration during drying.
<ul style="list-style-type: none">Good stability to steaming.	<ul style="list-style-type: none">No impairment of fastness properties during steaming.
<ul style="list-style-type: none">Only very slight dye-specific shade changes.	<ul style="list-style-type: none">Good reproducibility.

Characteristics	Benefits
<ul style="list-style-type: none">• Only very slight dye-specific impairment of light fastness.	<ul style="list-style-type: none">• Effect less marked than with products containing formaldehyde.
<ul style="list-style-type: none">• High affinity, low pH-dependence.	<ul style="list-style-type: none">• Easy dependable application.
<ul style="list-style-type: none">• High exhaustion.	<ul style="list-style-type: none">• Negligible effluent pollution, high cost, effectiveness.
<ul style="list-style-type: none">• No harshening of handle.	<ul style="list-style-type: none">• Pleasant natural handle e.g. on cotton knit good.

PROPERTIES

Chemical constitution:	Aqueous preparation based on polyethylene polyamine.
Ionic character:	Cationic
Physical form:	Clear, yellowish, low-viscosity liquid
pH (5% solution):	About 7.5
Specific gravity at 20°C:	About 1.1
General stability:	Highly stable in hard water and to acids, alkalis and electrolytes in the amounts usually encountered in textile processing.
Storage stability:	Stable for at least one year at 20°C in closed containers.
Compatibility	Can be used together with cationic and nonionic substances.
Ecology/toxicology:	The usual hygiene and safety rules for handling chemicals should be observed in storage, handling and use. The product must not be swallowed.
	For further information on ecology / toxicology, see the relevant Safety Data Sheet.

APPLICATIONS

Dyeings and prints produced with reactive or direct dyes should be washed off in the approved way, then aftertreated with ALBAFIX ECO in a fresh bath by the exhaust or continuous method.

Aftertreating with ALBAFIX ECO is recommended, particularly for deep shades produced with reactive dyes, if

- the goods are to be stored for some time in the wet state
- migration problems are likely to occur during drying because the hydrolyzed dye cannot be removed completely
- further processing is to be carried out in an acid medium
- the goods are to be dried at very high temperatures

Dissolving/diluting

ALBAFIX ECO fixative can be diluted in all proportions by pouring on cold water. Stock solutions are stable for prolonged periods.

Required amount

The amount of ALBAFIX ECO fixative required depends on type of dye and desired shade depth. The best effects are obtained by applying ALBAFIX ECO fixative as follows:

Batchwise exhaustion

Reactive dyes	0.25–2%	ALBAFIX® ECO
Direct dyes	1–3%	ALBAFIX® ECO
20 min at	40°C	
	pH 6–7 (adjusted with acetic acid)	

To ensure levelness we recommend in principle a **minimum amount of 3%** on cheese dyeing units.

Continuous application

Pad mangle

Reactive dyes	10–20 g/l	ALBAFIX® ECO
Direct dyes	20–30 g/l	ALBAFIX® ECO

Open-width washing machine

Reactive dyes	2–5 g/l	ALBAFIX® ECO
Direct dyes	3–8 g/l	ALBAFIX® ECO
Temperature about	30°C	
	pH 6–7 (adjusted pH with acetic acid)	

Aftertreatment of prints

<i>Exhaustion</i>	0.5–2%	ALBAFIX® ECO
<i>Open-width washer</i>	2–5 g/l	ALBAFIX® ECO
20–30 min at	30–50°C	
	pH 6–7 (adjusted with acetic acid)	

Resin finishing

15–30 g/l	ALBAFIX® ECO
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NOTES

ALBAFIX ECO exhausts on to the fiber at a medium rate and has good leveling power, which can be improved by slightly raising the pH at low treatment temperatures.

Cationic and nonionic softeners can be applied together with ALBAFIX ECO. The best softening effects are obtained by a one-bath, two-stage procedure, the softener being applied first, and the goods then treated with ALBAFIX ECO in the same bath.

Aftertreatment with ALBAFIX ECO does not impair sewability of the textile material in subsequent processing and garment making.

If ALBAFIX ECO has been applied evenly, simple masking with only a slight stripping action is enough to permit subsequent redyeing or shading.

Procedure for masking the cationic charge on the cellulose

2 g/l	INVALON® DAM	
3 ml/l	formic acid 85%	30 min at 90 ° C

The goods are then thoroughly rinsed and neutralized and treated again with ALBAFIX ECO.

Procedure for correcting unlevelness

Stage 1: stripping the dyeing

See the details in the respective pattern cards for SOLOPHENYL® and NOVACRON® dyes. After stripping, rinse thoroughly and neutralize.

Stage 2: masking the cationic charge on the cellulose

2 g/l	INVALON® DAM	
3 ml/l	formic acid 85%	30 min at 90 ° C

The goods are then thoroughly rinsed and neutralized.

Corrected faulty dyeings may be left with impaired light fastness as a result of the masking treatment.

Procedure for stripping of dyes and ALBAFIX ECO

Stage 1: stripping the dyeing

See the details in the respective pattern cards for SOLOPHENYL and CIBACRON dyes. After stripping, rinse thoroughly and neutralize.

Stage 2: stripping of ALBAFIX ECO

Method 1 (alkaline)

10 ml/l	caustic soda 30%	
1 g/l	INVALON® NA	45 min at 85°C (or 20 min at 120°C), then rinse and neutralize

Method 2 (acid)

3 g/l	potassium persulphate	
1 g/l	INVALON® ST	45 min at 80°C, then rinse and neutralize

Method 3 (oxidation)

5 ml/l	hydrogen peroxide 35 % w/w	
2 ml/l	caustic soda 30%	30 min at 80°C, then rinse and neutralize

Stage 3: masking

2 g/l	INVALON® DAM	
3 ml/l	formic acid 85%	30 min at 90 ° C

The goods are then thoroughly rinsed and neutralized.

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