

Alviron CNF

Levelling Agent for covering material-related streakiness on Polyamide



Application

The amounts depend on the degree of streakiness, the type of dyestuff, the liquor ratio and the colour depth. Light colours require more **Alvicon CNF** than medium and dark ones.

1. Dyeing with acid dyes

At well-levelling dyes

0.5 – 2.0 % **Alvicon CNF**

(pH value depending on dyes)

and for dyes with a high distinct neutral affinity,

2.0 – 3.0 % **Alvicon CNF**

(pH value depending on dyes)

are added to the bath. The material in this liquor is pre-run at approx. 40 °C for

10 – 15 minutes and then the dissolved dye will be added. After adding, the liquor will be heated up to dyeing temperature in 20 – 40 minutes. Depending on colour depth dyeing takes place in 45 – 60 minutes at boiling temperature or under HT-conditions (115 °C).

If using the pre-boiling method, pre-boiling for 20 – 30 minutes takes place without dye. Then, the material is cooled off to 70 – 80 °C, the dissolved dye is added and dyeing continues as usual.

2. Dyeing with substantive dyes

In particular brilliant blue shades are dyed substantive. As in neutral-drawing acid dyes, 2.0 – 3.0 % **Alvicon CNF** is used.

3. For dyeing with 1:2-metal complex dyes,

2.0 – 3.0 % **Alvicon CNF**

(pH value depending on dyes)

or for weakly acidic methods

3.0 – 4.0 % **Alvicon CNF**

(pH value depending on dyes)

is added. Then the temperature is raised to the desired dyeing temperature in 30 – 45 minutes and dyeing is performed for 45 – 60 minutes.

4. Levelling out of wrong dyeing

To correct wrong dyeing with acid dyes, irregular dyeing or too-dark shades are levelled out or lightened up at boiling temperature with

3.0 – 4.0 % **Alvicon CNF**

2.0 – 3.0 g/l ammonia conc.

Drawing up the dye again can be achieved by subsequent acidification of the bath with acetic acid.

Properties and Advantages of Alvion CNF

- ✓ Brownish, clear liquid of low alkaline reaction
- ✓ Density approx. 1 g/cm³
- ✓ Can be diluted easily with cold water
- ✓ Hardness resistant
- ✓ Very well acid, alkaline and electrolyte resistant
- ✓ HT-resistant
- ✓ Low-foaming, very well suitable for jet dye machines
- ✓ Outstanding migrating effect
- ✓ Outstanding levelling capacity
- ✓ Very high compensation capacity at material-related streakiness

Composition

Combination of ethylene-oxide condensation products and sulphonates

Ionogenicity

Anionic

Application areas

Alvion CNF is a highly effective levelling agent for dyeing polyamide fibres with acid, substantive or 1:2-metal complex dyes in all processing forms, in particular also for carpets. Material-related streakiness, based on fibre structure differences, caused by stretching and fixating differences, are compensated outstandingly by this product.

Alvion CNF has a coordinated compensation effect and an outstanding migration capacity. This achieves outstanding levelling even at difficult dye combinations. For extremely streaky dyeing items, this product can be used for the pre-boiling method.

The compensation effect while dyeing under HT conditions is improved even more as compared to the boiling temperature procedure.

Alvion CNF is low-foaming and very well suitable for use in jet dye machines.

Alvion CNF is very beneficially used for correcting wrong dyeing.

Test method for levelling capacity:

Exhaust procedure, liquor ratio: 10:1

Recipe:

A ... Auxiliaries:

- ALVIRON CNF % 0.0 – 3.0
- TC-SÄURESPENDER SWP 200 % g/l 1.0

B ... Dyes:

- TECOLAN Yellow E-2R % 0.300
- TECONYL Red L-2B 200 % % 0.300
- TECONYL Blue L-4R 200 % % 0.300












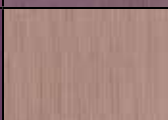

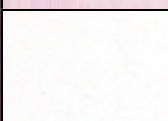



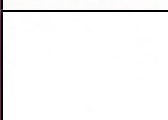


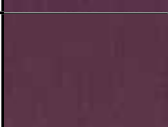



Process description:

The liquor is prepared and started at room temperature. Then it is heated with 1.0 °C/min to 40 °C. After achieving temperature the sample is removed from the dye container and replaced by a fresh sample. The dyeing process is completed.

Another dyeing process is performed in the same manner. However, the sample is then only replaced when 50 °C are reached and the fresh sample is then used for completion.

This way, the temperature levels 40 °C, 50 °C, 60 °C, 70 °C and 80 °C are presented. As a reference, one dyeing process is run up to 100 °C and interrupted when the temperature is reached.

This leads to a number of extractions and the associated subsequent exhausts:

Without levelling agent				with 3.0 % ALVIRON CNF			
	Exhaustion	Remainder			Exhaustion	Remainder	
Sample I at 40 °C			32 %	Sample I at 40 °C			34 %
Sample II at 50 °C			53 %	Sample II at 50 °C			52 %
Sample III at 60 °C			74 %	Sample III at 60 °C			69 %
Sample IV at 70 °C			90 %	Sample IV at 70 °C			89 %
Sample V at 80 °C			99 %	Sample V at 80 °C			101 %
Sample VI at 100 °C			100 % (standard)	Sample VI at 100 °C			102 %

The levelling capacity of the product is the better the more evenly the dyes exhaust.

Test method for migration capacity:

Exhaust procedure, liquor ratio: 10:1

Recipe:

A ... Auxiliaries:




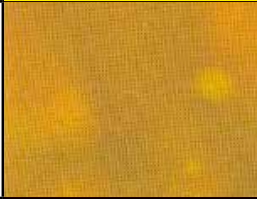




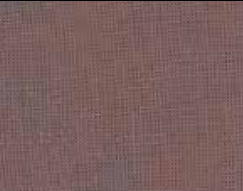
• ALVIRON CNF	%	-	-	-	-	2.0
• TC-SÄURESPENDER SWP 200%	%	1.0	1.0	1.0	1.0	1.0

B ... Dyes:

• TECONYL Yellow L-GL 200%	%	0.300	-	-	Blind dyeing	Blind dyeing
• TECONYL Red L-2B 200%	%	-	0.300	-		
• TECONYL Blue L-4R 200%	%	-	-	0.300		

Process description:

3 type dyeings are produced according to the above recipes in yellow/red/blue. Then, the samples are divided into equally large shares and mixed with each other. These samples are now cycled "blind" with and/or without levelling agent so that the dye will return to the liquor. The dye can spread out evenly again in this and then draw into the goods again.

	yellow dyeing	red dyeing	blue dyeing
type dyeing			
without levelling agent			
with 2.0% ALVIRON CNF			

The migration capacity of the product is better the more evenly the dyes are spread among all samples.



Attention: Safety note

The product contains alcyaminethoxylates. A representative of this substance group has been found to have an inhalation-toxic effect. As a responsible company, we inform you that application by spraying is generally not recommended for products that contain alcyaminethoxylats and that the formation of aerosols is to be avoided. If a spray application is performed anyway, measures must be taken to prevent exposure of people to aerosols at the workplace.

Storage

Store cool but protected from frost. Product changes at effects of temperatures below freezing are usually reversible after thawing.

For further notes on safe handling, see the safety data sheet!

The recommendations and information in word and text on our products here are based on comprehensive research work and correspond to our current experience from textile refinement. The information is deemed non-committal – also regarding property rights of third parties and foreign legal provisions - and shall not release the user from testing products and procedures for suitability for his use directly. In particular, we assume no liability for any purposes not expressly named by us in writing. We reserve technical changes in the scope of new product developments. We refer to our general sales and delivery conditions, item 7, in case of damage.



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