

PAFIX No2

Character	Fastness improving aftertreatment agent for polyamide dyeings
Chemical Character	Condensation product of aromatic sulphonic acids
Appearance	Light brown liquid
Ionic Character	Anionic
pH Value of a 10 % Solution	7.0 – 8.0
Specific Weight at 20 °C	1.08
Stabilities	<p>PAFIX No2 is stable to the usual concentrations of acids, alkalis and to water hardeners. The product must, however, not be directly mixed with concentrated acids. A simultaneous application of non-ionic auxiliaries may impair the effectiveness.</p> <p>PAFIX No2 is not compatible with cationic products.</p> <p>The product is sensitive to frost to a certain extent. Changes occurring at low temperatures will disappear after heating up the product and stirring it thoroughly.</p>

The above given values are product describing data. Please consult the 'delivery specification' for binding product specifications. Further data about product properties, toxicological, ecological data as well as data relevant to safety can be found in the safety data sheet.

Properties

PAFIX No2 is an aftertreatment agent for improving the wet fastness of polyamide dyeings with acid and 1 : 2 metal complex dyes.

PAFIX No2 has the following advantages:

- PAFIX No2 is an aftertreatment agent which can be applied according to a classic method after the dyebath in a separated aftertreatment bath. In addition, it can be applied in the course of a one bath process of two steps, for this purpose, see also the single process options
- Direct application as levelling and fixing agent in the dyebath for dark shades (navy, black, see also Process Option 1)
- Dosable, stable to jets, stable to hard water
- Stable to non-ionic disturbant surfactants

- One bath aftertreatment in the cooling dyebath in case SARABID IPF or SARABID IPM is used as levelling agent for dyeing (for this purpose, see Process Option 2)
- If you work on a fresh bath with intermediate rinsing (classic process), all common PA levelling agents can be applied (see Process Option 3)
- Improvement of the wash fastness
- Good contact fastnesses such as water, sea water and perspiration fastnesses
- No impact on the light fastness
- Suited for all standard shades (except for luminous colours; we recommend using PAFIX No1 for the aftertreatment since there is no shade deviation into a bluish cast with PAFIX No1)

Furthermore, PAFIX No2 has the following product properties:

- No or only minimum impact on the fastness improving effects through subsequent heat-setting processes
- PAFIX No2 slightly hardens the fabric handle. If non-ionic softeners are applied afterwards, the colour fastness level won't be influenced. Cationic softeners, however, if applied in the exhaust procedure, may slightly impair the fastness improvement
- Blocking agent for WO/PA fibre blends

Application Technique

Diluting Instructions

PAFIX No2 can be easily diluted with cold and warm water (40 °C). Prior to the application the product is diluted with water before it is added to the aftertreatment liquor and before the diluted acid is added.

Application Fields

Discontinuous Dyeing Machines

Various discontinuous process options are described below which must be adjusted to the desired effect, material and machinery.

Process Option 1: One Bath – One Step

Special application for dark shades (navy, black)

With dark shades PAFIX No2 can be directly added when starting the dyeing. PAFIX No2 is simultaneously effective as levelling and fixing agent. Do not add any further levelling agent to the dyebath as the dye may otherwise be retarded.

Outstanding feature of this special dyeing method: good general fastness levels and major time savings.

3.0 – 4.0 % PAFIX No2

Process Option 2: One Bath – Two Steps in a cooling dyebath - BeSo® RESPONSIBLE - SHORTCUT

In combination with the sustainable process partner PAFIX No2 of the effect range BeSo BeSo®RESPONSIBLE, the concept for resource-efficient processes, with the one bath “SHORTCUT” process you can achieve good general fastness properties together with a maximal save time. Suited for all standard shades and colour depths. PAFIX No2 is applied at the end of the dyeing in the cooling dyebath at 80°C. This dyeing process can only be realized with a suitable levelling agent (SARABID IPM or SARABID IPF for the beginning of the dyeing process. Non-ionic levelling agents with a (pseudo-)cationic behavior in the acid pH range are not suited for this dyeing one bath method made of two steps. They may lead to precipitations (stains) together with the anionic aftertreatment agents.

add at 80 °C

3.0 – 5.0 % PAFIX No2

Let dwell for 5 min at 80 °C,
check pH value and possibly correct it by
adding MEROPAN KP (diluted)
for adjusting a pH of 4.0 – 5.0
Treatment time: 20 - 30 min at 80 °C
Rinse thoroughly warm and cold, complete.

Process Option 3: Classic Dyeing Method, Separate Aftertreatment

The “classic” method (dyeing with a subsequent separate aftertreatment) can be used for all standard shades and colour depths and with all common PA levelling agents. However, the classic process takes much longer than the described one bath processes.

Outstanding feature: very good fastness level with a simultaneously high process safety.

It is important to rinse thoroughly after dyeing in order to remove remainders of cationic/non-ionic levelling agents from the dyebath as they may otherwise affect the fastness levels later on.

Add at 30 - 40 °C

3.0 – 5.0 % PAFIX No2

Let dwell for 5 min at 30-40 °C.
Heat up to 60 °C
Dose MEROPAN KP (diluted)
for adjusting a pH of 4.0 – 5.0
Let dwell for 5 min. at 60 °C
Heat up with 1.5 – 2.0 °C/min to 70 - 80 °C
Treatment time: 15 - 20 min
Rinse thoroughly warm and cold, complete.

Blocking of polyamide fibres when dyeing fibre blends made of polyamide and wool

When dyeing light-coloured to medium shades with 1 : 2 metal complex or acid dyes, PAFIX No2 gives good tone-in-tone effects. The dosage depends on the mixing ratio, the dye quantity as well as the dyeing conditions. PAFIX No2 is added to the dyebath.

Application quantity: 2.0 – 5.0 % PAFIX No2

Stripping

If a bath must be repaired (e.g. shade too deep, crossdyeing, etc.), PAFIX No2 can be stripped off through an alkaline treatment:

2.0 g/l soda ash

20 - 30 min at 95 - 98 °C, rinse

This largely removes the product from the fabric. Slight residues of PAFIX No2 on the polyamide won't disturb the subsequent crossdyeing process.

We reserve the right to modify the product and technical leaflet.

Our department for applied technique is always at your service for further information and advice.

Our technical advice and recommendations given verbally, in writing or by trials are believed to be correct. They are neither binding with regard to possible rights of third parties nor do they exempt you from your task of examining the suitability of our products for the intended use. We cannot accept any responsibility for application and processing methods which are beyond our control.

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