



Gammacolor s.r.l.
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Associazione Tessile e Salute
Azienda associata

p.IVA 00736390964 C.F. 02639210158 c.c.i.a. Milano n. 927455 Codice ISS azienda 00736390964

GAMMAPAL NK

Non-toxic diffuser/accelerator used in the dyeing of aramid fibers

Composition: amide derivative

Appearance: clear amber liquid

Density at 20°C: 1.095 g/cm³

Solubility in water: dispersible

Ionic charge: absent

Stability to hard water: excellent even at 20°dH

pH stability: throughout the pH spectrum

Compatibility: with any dyeing auxiliary

Storage stability: excellent in normal environmental conditions for 12 months. When frozen, it solidifies without altering.

The product has a solvent action against PVC and similar materials. Attention should be paid to all surfaces that may come into contact with the concentrated product. Any non-steel-based wet surfaces (gaskets, connectors, tubing, etc.) could be damaged after prolonged contact with the product in concentrated form. Materials should be tested for product compatibility.

Property

GAMMAPAL NK allows to increase the exhaustion of cationic dyes used in the dyeing of aramid fibers (Nomex®, Kevlar®, Conex®, Twaron®, ect).

GAMMAPAL NK as well as guaranteeing a good color yield, gives fullness to dark tones (black, navy blue).

GAMMAPAL NK improves the fastness to rubbing and washing.

GAMMAPAL NK is non-foaming and can also be used in highly turbulent systems.

GAMMAPAL NK does not affect lightfastness and tensile strength.

GAMMAPAL NK avoids the emission of harmful odors which generally originate using benzyl alcohol or acetophenone.



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Dyeing process

- Add GAMMAPAL NK to the dye bath at 40°C
- Increase the temperature to 70°C (1°C/min.)
- Add the dyestuff solution – bath circulation for 10'
- Add Sodium Nitrate – bath circulation for 10'
- Adjust the pH (with organic acids): 3 - 4
- Increase the temperature to 120-130°C (1°C/min) and maintain for 1 hour
- Cool down to 80°C (1°C/min.) – release the bath
- Rinse at 60°C ; rinse at cold temperature.

Dosage

GAMMAPAL NK is used for 20-40% of the weight of the goods according to the quantity of dye used. Generally the ratio of sodium nitrate to carrier is 1:2.

We also recommend the use of GAMMA RC as a specific detergent to be used in the scouring phase, and GAMMAPAL EF as a soaping agent for medium/dark tones.

Keywords: diffuser, accelerator, aramid, cationic, nomex, kevlar, aramidic.

The data are the result of careful studies and / or experience obtained, however, they should be considered indicative and still no guarantee of employment. The data contained in herein is not intended to be specific. For information: e-mail info@gammacolorsrl.com