



**KAYKAY CYANO**  
CHEMICALS PRIVATE LIMITED

## Technical Leaflet

Ultrashine RN Liquid

FLUORESCENT BRIGHTNER FOR POLYESTER FIBERS AND THEIR BLENDS

Ultrashine RN Liquid



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# ULTRASHINE RN LIQUID

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|                   |   |
|-------------------|---|
| <b>Nature</b>     | Strylbenzene derivative, nonionic.  |
| <b>Storage</b>    | <p>When stored correctly, in sealed containers, ULTRASHINE RN LIQUID has a shelf life of up to 24 months.</p> <p>The dispersion should always be well stirred before removal from the containers.</p>   |
| <b>Properties</b> | <p>Yellowish dispersion. The White effects produced are more or less reddish/bluish in tone, depending on the amount applied.</p> <p>Miscible with cold water in all proportions.</p> <p>Solutions of the product, and fabric that been padded and dried but not fixed, must be protected from light.</p> <p>Stable in reductive bleaching liquors and in those, which contain hydrogen peroxide or sodium hypochlorite.</p> <p>Because of its high yield, ULTRASHINE RN LIQUID is extremely economical. Even small amounts produce brilliant white effects of a high standard. In the exhaust process, at the boil, it is necessary to use a carrier.</p> <p>The product is less suitable for brightening CA, CT and PA.</p> |



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## Application

### Guideline recipes

|  |   |
|--|---|
| <p><b>HT Process</b></p>   | <p>0.1 – 0.5% ULTRASHINE RN LIQUID<br/>0.5-1 g/1 Dispersing Agent<br/>pH 4.5-5.5(acetic Acid)</p> <p>Liquor ratio, 5:1 to 20:1<br/>Starting temperature: 500-600 C<br/>Heat up to 1300 C in min<br/>30-45 min at 1300 C<br/>The use of dispersing Agent is particularly necessary in the fluorescent brightening of wound packages.</p>   |
| <p><b>Carrier Process</b></p>  | <p>0.1-0.5% ULTRASHINE RN LIQUID<br/>X % Carrier, as recommended by the manufacturer<br/>0.5-1 g/1 Dispersing Agent<br/>pH 4.5-5.5 (acetic acid)</p> <p>Liquor ratio, 10:1 to 20:1<br/>Temperature: 98- 1050 C<br/>Time: 45-60 min</p>  |
| <p><b>Thermosol process,<br/>Two-stage drying<br/>and fixation</b></p> | <p>0.5-5 g/1 ULTRASHINE RN LIQUID<br/>Liquor pick-up: approx. 60-70%<br/>Dry: approx. 120 C<br/>Thermosol: 180-2000 C<br/>Time: 30-15 s</p> <p>The fixation conditions depend on the fabric construction. Tightly woven and relatively heavy qualities require longer fixation times or higher fixation temperatures than lightweight, open materials.</p> <p>The padded and dried fabric should be protected from prolonged exposure to light, because the unfixed fluorescent brightener is sensitive to light.</p> |



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### Single-stage Drying and Fixation

In this procedure, the equipment used has a considerable influence on the fixation time and temperature; for this reason, conditions based on experience are more reliable than general recommendations.

In cases of doubt, it is advisable to carry out preliminary trials. The amount of ULTRASHINE RN LIQUID used is the same as in the two-stage drying and fixation process.

### Curing Process

ULTRASHINE RN LIQUID can also be fixed under the conditions provided by resin finishing and other finishing treatments.

### Fixation Process for the Fluorescent Brightening of Print grounds

The fluorescent brightening of print grounds is frequently carried out in conjunction with the thermosol process.

Knit goods produced from texturized PES are also brightened by the HT process (eg. Data concerning the thermosol and HT processes). Under the fixation conditions Employed in textile printing. White effects produced with ULTRASHINE RN LIQUID Behave as follows:

#### Printing with disperse dyes:

| Medium   | Temperature                          | Time     | White Effect  |
|----------|--------------------------------------|----------|---------------|
| HT steam | 160 <sup>0</sup> -170 <sup>0</sup> C | 8-10 min | No impairment |
| Hot Air  | 200 <sup>0</sup> C                   | 6 min    | No impairment |

#### Printing with pigment dyes:

| Medium   | Temperature        | Time  | White Effect  |
|----------|--------------------|-------|---------------|
| HT steam | 160 <sup>0</sup> C | 3 min | No impairment |
| Hot Air  | 175 <sup>0</sup> C | 6 min | No impairment |



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### Fastness Properties:

The following fastness data are applicable for PES with an optimum standard of white, and refer to the change in the White effect.

| Fastness to:   | ULTRASHINE RN LIQUID |
|--|----------------------|
| Light (Xenotest) DIN 54 004                                    | 5-6                  |
| Washing at 40° C DIN 54 014                                    | 5                    |
| Washing at 60° C DIN 54 010                                    | 5                    |
| Seawater DIN 54 007  | 5                    |
| Perspiration<br>DIN 54 020 Alkaline                            | 5                    |
| Dry Cleaning Din 54 024  | 5                    |
| Dry heat pleating and<br>Dry heat setting 180° C<br>DIN 54 060 | 5                    |
| Dry heat pleating and<br>Dry heat setting 210° C<br>DIN 54 060 | 4-5                  |
| Oxides of Nitrogen DIN 54 024 (E)                              | 5                    |

## For More Information:

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