KAPPAFIX FF 45
Fixing agent for indigo and pre-cationising agent for pigment dyeings and printings

CHEMICAL-PHYSICAL DATA
Chemical composition: aqueous solution of cationic, high-molecular resins
Appearance: yellowish liquid
pH-value 20 °C (product): approx. 3.0
Density 20 °C (g/ml): approx. 1.04
Ionic charge: highly cationic

FUNCTION
Due to its cationic nature, KAPPAFIX FF 45 is attached to the surface of the fibre. By temperature impact, the product cross-links and therefore encloses the indigo dyestuff. This results in an improved rub fastness of 1 - 2 grades.

The cationic nature of the product is utilised as pre-cationising agent when dyeing and printing with pigments.

During printing processes a color deepening effect can be achieved by a pretreatment with KAPPAFIX FF 45. The fastness properties are improved by a finishing treatment with KAPPAFIX FF 45.

APPLICATION
KAPPAFIX FF 45 is applied in order to obtain modern wash-out effects or dark shades of blue denim.

Recommended application level on the washing machine depending on the required effect:

<table>
<thead>
<tr>
<th>2 – 5 %</th>
<th>KAPPAFIX FF 45</th>
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<tbody>
<tr>
<td>Liquor ratio:</td>
<td>1:6 – 1:10</td>
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Pre-run for 5 minutes at 25 °C, then slowly heat up the machine to 60 – 65 °C and treat for further 10 minutes. During the process the pH-value should be weakly acid at 6.

The product can also be sprayed in diluted form to achieve local fashionable effects.

To achieve better effects, it is recommended to dry intermediately before carrying on.

Recommended application level for foulard:

**Pretreatment**

<table>
<thead>
<tr>
<th>10 g/l</th>
<th>KAPPAFIX FF 45</th>
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<tbody>
<tr>
<td>Drying:</td>
<td>100 °C</td>
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</table>

**Finishing treatment**

<table>
<thead>
<tr>
<th>10 g/l</th>
<th>KAPPAFIX FF 45</th>
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</thead>
<tbody>
<tr>
<td>Drying:</td>
<td>100 °C</td>
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</table>

DILUTION INSTRUCTION

KAPPAFIX FF 45 can be diluted with cold or warm water. The product can also be added directly to the liquor.

STORAGE

KAPPAFIX FF 45 should be stored in cool place. The product remains stable for at least 3 months if stored properly and at a temperature between 5 and 25 °C in a tightly closed container.

Do not expose to frost!