Rongalit® C

Reducing agent for direct printing with vat dyes
Discharge agent for white and colored discharge prints
Nature

Sulfinic acid derivative

Physical form

White powder

Shelf life

When stored properly in sealed containers, Rongalit C has a shelf life of 24 months.

Note on storage

Rongalit C must not be allowed to become moist or come into contact with acids and/or oxidizing agents. Since the product is hygroscopic, containers should be stored in a dry, acid-free room where the temperature does not become too warm. The product must not be removed with a moist scoop. Containers should be resealed after use.

Information on handling, ecology and disposal

Note the information given in the current Safety Data Sheet.

Properties

Decomposition temperature

>50 °C – above this temperature thermal decomposition is possible.

pH

Approx. 10 (10% aqueous solution)

Product specification

Tolerances are given in the product specification.

Solubility in water (20 °C)

Approx. 600 g dissolves readily in 1 l water. The solution process is endothermic.

Stability

Rongalit C is stable to alkalis but decomposed by acids. Decomposition by acids and oxidation are exothermic.

The product is stable for long periods in neutral or alkaline printing thickeners.

Application

Rongalit C is used mainly for printing woven and knitted fabrics composed of cellulosic fibers.

1. Direct printing with vat dyes

A stock thickening containing 130–140 g/kg Rongalit C and about 1 to 1.1 times this amount of potash are used for direct printing with vat dyes. The potash may be partly or completely replaced by soda. 100 parts by weight of potash are replaced by 75 parts by weight of soda.

Guideline recipe for a stock thickening:

- 550 g thickener
- 30–50 g Glyezin® A or glycerol (or a 1:1 mixture of the two)
- 130 g potash or 100 g soda
- 130 g Rongalit C
- ... g water or thickening
- 1000 g

Because of its good solubility, Rongalit C can be stirred directly into the thickening.

The thickening should be set to a neutral or alkaline pH.

The above amounts apply to rotary screen printing. In flat screen printing, the amounts of reducing agent and alkali can be reduced by about 20%.

† In accordance with DIN 19268
The actual print paste has the following composition:

<table>
<thead>
<tr>
<th></th>
<th>Paste A</th>
<th>Paste B</th>
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<tbody>
<tr>
<td>thickener</td>
<td>500 g</td>
<td>500 g</td>
</tr>
<tr>
<td>Rongalit C</td>
<td>150 g</td>
<td>200 g</td>
</tr>
<tr>
<td>suitable discharge-resistant optical brightener</td>
<td>10 g</td>
<td>10 g</td>
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Then add:
- caustic soda 38 °Bé – 40 g
- and soda – 40 g
- and make up with water or thickening
- 340 g
- 210 g
- 1000 g

White discharge print paste A is used mainly for discharge printing on readily dischargeable dyeings produced with direct and reactive dyes. Print paste B is intended for white discharge printing on dyeings produced with reactive dyes that are difficult to discharge and for naphthol combinations. Here, too, the caustic soda may be partly or totally replaced by soda.

After drying, the print is steamed for 8–10 minutes with saturated steam (at 102 °C under air-free conditions).

2. Colored discharge printing with vat dyes on dischargeable cellulosic-fiber dyeings

The stock thickening described in 1. is also very suitable for colored discharge prints with vat dyes on dischargeable cellulosic-fiber dyeings. Depending on the dischargeability and depth of the ground shade, however, it may be necessary to increase the amount of Rongalit C and possibly also the amount of potash and/or soda.

3. White discharge printing on cellulosic-fiber dyeings that are dischargeable to white

Rongalit C also gives excellent results as a discharging and reducing agent in white discharge printing.

Guideline recipes for white discharge print pastes:

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</table>

Guideline recipe for making up a pad liquor containing Rongalit C:

500 g water

2– 5 g Kieralon CD

5– 15 g borax

40 g soda

25– 30 g caustic soda (see conversion table on p. 4)

100 g Rongalit C; make up with water to

1000 g
We recommend adding the products to the liquor in the above order.

The printed, dried fabric is padded with this solution on a padder and steamed in one operation for 5–7 minutes with saturated steam or slightly superheated steam (110–115 °C). The goods are then rinsed, reoxidized under alkaline conditions and soaped at the boil. An addition of acid is only made to the soaping bath or to one of the subsequent baths.

**Conversion table**

The following conversion table will assist with converting the amount of solid caustic soda to the corresponding volume or weight unit of caustic soda solution.

100 g solid caustic soda corresponds to:

- 347 g or 263 ml NaOH 35 °Bé = 64.0 °TW
- 307 g or 227 ml NaOH 38 °Bé = 71.4 °TW
- 286 g or 206 ml NaOH 40 °Bé = 76.6 °TW
- 238 g or 164 ml NaOH 45 °Bé = 90.6 °TW
- 214 g or 143 ml NaOH 48 °Bé = 99.6 °TW
- 206 g or 136 ml NaOH 49 °Bé = 102.8 °TW
- 200 g or 130 ml NaOH 50 °Bé = 106.0 °TW

**Note**

The prints must always be thoroughly washed off.

**Safety**

When using this product, the information and advice given in our Safety Data Sheet should be observed. Due attention should also be given to the precautions necessary for handling chemicals.

**Note**

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. Responsibility for compliance with textile dealers’ requirements rests with the textile processor.

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