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Rongalit[®] Discharge C

Previously Rongalit[®] C

Discharge and reducing agent for use in discharge printing

- Direct printing and two phase process with vat dyestuffs.
- Discharge printing on dyed cellulosic fabrics.

Chemical Character	Sulfinic acid derivative
Physical form	White powder
Shelf life	Can be stored in the original sealed containers and in good conditions for 24 months. Opened containers should be used up as quickly as possible and should be properly resealed after use
	Avoid moist conditions and should not be stored together with oxidising agents or acids.
Note on storage	As the product is hygroscopic, the product should be stored in dry, acid free and in conditions which are not too warm. Remove from containers with dry equipment (i.e. scoops).
Notes on safe handling, disposal and ecological aspects	Before first use, please pay attention to the information in the current Safety Data Sheet.

Properties

Product specification	Tolerances for test characteristics are given in the product specification.
Decomposition temperature	From > 50 °C. Above this temperature, a thermal decomposition is possible.
pH value¹	Approx. 10 (10 % aqueous solution)
Solubility in water (20 °C)	Approx. 600 g/l in water has good solubility; the dissolving process is endothermic.
Stability	Good stability with alkalis In neutral or alkaline print thickeners, the product is stable for long periods. With acids, Rongalit® Discharge C decomposes. Decomposition by acids and oxidation are exothermic.
Note	The product property data merely provide an indication of how the product is to be used. They do not constitute the agreed quality of the product, nor are they the object of regular quality control tests

Application

1. Direct printing with vat dyestuffs

For direct printing with vat dyestuffs, a stock thickening is used containing 130 – 140 g/kg Rongalit® Discharge C and also the same amount of 1,1 potash.

Potash can be wholly or partly substituted by soda ash. 100 parts of potash can be replaced by 75 of soda ash.

Example of the stock thickening:

550 g Thickener
30-50g Glycerine
130 g Potash or 100 g Soda ash
130 g Rongalit® Discharge C
□... g Water or thickening
□□1000 g

Due to its good solubility, Rongalit® Discharge C can be added directly to the thickening with stirring

¹ In accordance with DIN 19268 DE

The thickener should be set with a neutral or alkaline pH.

The above quantities relate to rotary screen printing. In flat screen printing the reducing agent and the alkali can be reduced by 20%.

The actual print colour has the following composition:

... g	Vat dyestuff (Printing grades!)
650 g	Stock thickening
..... g	Water or thickening
1000 g	

After printing and drying the fabric is steamed for 8 – 12 minutes with saturated steam (102 °C, „air free“).

2. Coloured discharges with vat dyes on dischargeable dyed cellulose fibres

For coloured discharge printing with vat dyes on dischargeable dyeings on cellulosic fibres the above stock thickening is also very well suited. Depending on the dischargeability and colour depth of the dyed ground, it may be necessary to increase the proportion of Rongalit® Discharge C and possibly also to increase the amount of potash and / or soda ash.

3. White discharge prints on dischargeable dyeings on cellulose fibres

For white discharge prints, Rongalit® Discharge C has proved successful as discharge agent and reducing agent.

Example for the composition of white discharge pastes:

	Paste „A“	Paste „B“
Thickener:	500 g	500 g
Rongalit® Discharge C:	150 g	200 g
Suitable discharge resistant optical brightener:	10 g	10 g
Mix together, then		
Caustic soda 38 °Bé	–	40 g
Soda ash	–	40 g
Water or thickening to	<u>340 g</u>	<u>210 g</u>
	1000 g	

White discharge paste „A“ is intended for discharge prints on easily dischargeable dyeings with substantive and reactive dyes.

Print paste „B“ is for white discharge prints on dyeings with more difficult to discharge reactive dyes and naphthol combinations. Also in this case the caustic soda may be wholly or partly replaced by soda ash.

After drying steaming is carried out for 8–10 minutes with saturated steam (102 °C, „air free“).

4. Two phase printing process with vat dyes

Two phase printing process is another application area for Rongalit® Discharge C. In comparison to Rongalit® Reducer 2PHA (previously Rongalit® 2PHA) + Rongalit® Reducer 2PHB Liq. (previously Rongalit® 2PHB Liquid), which were specially developed for the two phase process with vat dyes, Rongalit® Discharge C is a slower reaction. It takes a longer steaming time and the product is therefore particularly suitable for textile printers who do not have the opportunity to fix the vat dyes in a special two-phase shock (Flash ager) within a few seconds,

Application rate. 100 g Rongalit® Discharge C²

² Please note: In the event of in the recipe using borate: According to the latest scientific findings, borates/borax can impair fertility and cause harm to the unborn child. For textile products with borate content of 0.1%, in the EU notification (as of Sept. 2010) applies.

The printed and dried fabrics are padded in a padding mangle and steamed for 5–7 minutes with saturated steam or slightly superheated steam (110–115 °C). Finally the fabric is rinsed, alkaline re-oxidised and given a boiling soaping treatment. An addition of acid is made to the soaping bath or one of the following soaping baths.

Conversion table

The following table can be used to convert the amount of caustic soda in the corresponding volume or by unit of weight of sodium hydroxide solution.

100 g caustic soda (fixed) correspond 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

Thorough after-washing of the print is essential

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 the requirements of the downstream textile market rests with the textile processor.

June 2011