

Technical - Information

AVCO-CHARGE RED NA

DISCHARGING AND REDUCING AGENT FOR TEXTILE PRINTING

AVCO-CHARGE RED NA is a special discharging agent for printing textile fabrics pre-dyed with suitable dischargeable dyes.

AVCO-CHARGE RED NA is recommended for white discharge effect and for colour printing on dark grounds.

SPECIFICATION:

Appearance	White chip, powder.
Chemical nature	Blend of Sodium hydroxymethane sulphonate and stabilizers.
Compatibility	Not compatible with alkalis, acids and oxidizing agents. Good with water hardness.
Density (kg/m³)	App. 1700
pH (10% sol.)	9 - 11
Solubility	App. 500 gr/l
Storage	Keep in cool and dry place. Sensitive to moisture. Do not store in direct sun. Partially used drums should be re-sealed with the original cover.
Safety	When mixed with acids may evolve toxic gas.

PROPERTIES & USES:

1. AVCO-CHARGE RED NA provides a unique versatility of printing on both cotton and synthetics due to the exceptional stability over long period and high compatibility with various print systems.
2. AVCO-CHARGE RED NA gives excellent definition of discharge printing.
3. Due to strong and consistent reduction power, AVCO-CHARGE RED NA offers a very good print production and excellent reproducibility.
4. AVCO-CHARGE RED NA is highly versatile so can be used in both natural and synthetic recipes.
5. AVCO-CHARGE RED NA is ecologically acceptable.
6. AVCO-CHARGE RED NA develops its full redox potential in the alkaline pH range, thus in practice, it is used for white discharges or vat discharges on cotton.

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APPLICATION:

AVCO-CHARGE RED NA can be used for colour discharges on Cotton, polyester and other blends, the ground shade of the fabric must be padded/dyed using Dischargeable dyes. Blended fabrics which are already dyed cannot be discharged properly. For producing Colour discharge on the ground, the fabric is printed with colour discharge paste containing non dischargeable colour. Polyester/ cellulosic blends dyed with dischargeable reactive dyes (vinyl sulphone), direct dyes, azoic dyes for cellulose and polyester is to be padded with dischargeable disperse dyes.

The suitable thickener used for this kind of printing are Sodium alginate, Starch, British gum, Modified Guar gum. A combination of Guar gum with British Gum is usually preferred.

Application Method for Cotton:

1. With VAT paste:

VAT paste	x	parts
Thickener (Guar+Starch+ dextrin based)	50 – 65	parts
AVCO-CHARGE RED NA	10 – 12	parts
Na ₂ CO ₃ / K ₂ CO ₃	5 – 10	parts
Glycerine or PEG	4	parts
Urea	8	parts
Pine Oil	2	parts
Water to	100	parts

Print the fabrics with the above paste and dry it around 102°C. Then the fabrics should be steamed at 102°C with saturated steam for 20-25 minutes in Star Ager or 7-10 minutes in Continuous Ager. After that, the fabrics is washed in an acidic medium Sodium Perborate/ Hydrogen Peroxide bath at 50°C. Acidification can be done by using Acetic Acid, then carried out Cold Wash of the fabrics → Soaping with non-ionic detergent at 80°C → Hot Wash → Cold Wash.

2. With Reactive dyes:

Alginate Thickener	50 – 60	parts
AVCO-CHARGE RED NA	10 – 12	parts
NaHCO ₃	2 – 3	parts
Glycerine or DEG	2 – 3	parts
Urea	4 – 5	parts
Reactive dyes (H brand)	x	parts
Water to	100	parts

Print the padded fabric with the above paste and dry it. Curing should be done at 178 – 180°C for 6 - 8 minutes in a Loop Ager or steamed at 102°C with saturated steam for 20-25 minutes in Star Ager or 7 - 10 minutes in Continuous Ager. Wash the fabric in cold and then Soaping with non-ionic detergent at 80°C → Hot Wash → Cold Wash.

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Application Method for Polyester:

Colour dischargeable paste	x	parts
Disperse dye (ND)		
AVCO-CHARGE RED NA	8 – 15	parts
PEG 400	2	parts
Water	y	parts
Guar Gum (8%)	z	parts
Pine Oil	2	parts
Water to	100	parts

Print the padded fabric with the above paste and dry it. Curing should be done at 178 – 180°C for 6 - 8 minutes in a Loop Ager or at 30 psi pressure for 45 minutes in Pressure Ager. Wash the fabric in cold and then give a reduction clearing treatment.

NOTE:

Quantity of AVCO-CHARGE RED NA used in above print paste varies with Depth of Ground shade and Dyes used. Addition of auxiliaries for improving Discharge Effect can be used.

The printed fabric should be steamed and Washed off as soon as possible to avoid any problem of impression effect on dyed ground.

In case of high twist fabric, the quantity of Fixation accelerator must be increased by another 0.5 parts than mention above.

Printing paste containing AVCO-CHARGE RED NA should be used within the preparation day.

AVCO-CHARGE RED NA should be applied with thickeners which are resistant towards heavy metal. When adding AVCO-CHARGE RED NA to the thickener paste the viscosity may increased or decreased.