

POLYPRINT RC Conc.

High quality, high concentration thickener for Reactive printing

Properties

- : - is a high viscosity and high concentrated synthetic thickener developed for reactive printing.
- is compatible with all classes of dyestuff and natural thickeners except Cationic dyestuffs and thickeners due to its anionic charge.
- is fine aqueous dispersion of acrylate in high purity mineral oil which disperses readily in water and rapidly produces smooth pastes.
- ensures sharper and better defined prints, color brightness and yield.
- instantly modifies rheology and viscosity of printing paste formulations.
- provides high color efficiency, sharpness in the designs, vibrant and bright colors, soft handle, easy usage and good fastness are gained.
- is a high quality, APEO free inverse emulsion synthetic thickener for reactive printing with high electrolyte stability.
- causes the dried and fixed print paste film to remain flexible which will be easy to remove in normal washing-off process.
- shows normally more than 20% improved color yield on most shades and it doesn't need long time for the thickener to hydrate, then there is a potential for saving in dyes usage amount and the time.
- compared to sodium alginate, it has better coverage and color yield in the Printing over a wide range of viscosity and can be used in printing process with less bleed pressure or smaller magnet bar, causing finer definition and also faster printing on rotary machines.
- gives an excellent wash ability and has superior shelf life than the others.

Field of application

Substrate	:	cotton, polyester/cotton, polyester
Aggregate	:	printing machines
Operation	:	reactive printing

Characteristics

Type of product	:	APEO and formaldehyde free high concentrated inverse polyacrylate emulsion
Ionic nature	:	Anionic
Appearance	:	Beige, fluid dispersion
PH of 1% sol.	:	7+/- 1
Density (g/cm³)	:	1.19

Application

Dissolving method	:	simply add to water and stir until the required viscosity is developed.
Guide recipes	:	In general, the viscosity of printing paste is about 10,000 cp; while adding dyestuffs in normal concentrations (up to 3%). In higher concentration of dyestuffs such as blacks, may give bigger reductions in viscosity that in such a case, adjusting the viscosity may be made by adding the thickener directly.

Preparation of print paste for Reactive printing : In direct dosing method, all the recommended ingredients included of dyestuff, alkali, urea, oxidizing and sequestering agent are dissolved in soft water, then the thickener is added while stirring until the desired viscosity is achieved. But it is recommended to use stock method, Which in this method all mentioned ingredients except dyestuff are dissolved while stirring and then, the recommended dosage of the thickener is added and continue to stirring until being homogeneous (about 10-20 min.) and the dyestuff is added whenever required.

The recommended dosage of print paste ingredients are as follows:

Urea	10.0 - 20.0 %
Alkali	2.0 - 2.50 %
Oxidizing agent	1.0 - 1.50 %
Polyprint RC Conc.	3.5 - 5.00 %
Dyestuff	x %
Water	up to 100 %

It is advised to prepare the paste without dyes by adding 3% **POLYPRINT RC Conc.** and add the rest of the thickener after adding the dyestuffs to provide desired viscosity.

We recommend print pastes include Sodium alginate and **POLYPRINT RC Conc.** which create a better color depth and evenness than those produced with one of them alone. In such case, reduce about 30-50 of alginate which normally used, and replace it with 2.0-3.5% **POLYPRINT RC Conc.** in the paste.

The prints are given a dry heat or steaming fixation treatment which is done according to the usual conditions of reactive printing.

Washing off

- **step 1 : rinse cold (max. 30°C) with overflow and/or spray if possible.**
- **step 2 : rinse warm (50-60°C) with overflow and/or spray if possible.**
- **step 3 : scour at boil (90-100°C) with about 1-3 g/l complexing agent and 1-2 g/l nonionic detergent.**
- **step 4 : rinse hot (60-80°C).**

Further cold rinses will be beneficial.

Storage stability : 12 months in the original container and should be stored between 5-30°C .

As the product may deposit in the container, it should always be stirred up before use. The product, in principle, be kept away from frost and direct exposure to sunshine. Opened containers must be closed again tightly.

The indications given herein correspond to practical experiences. Owing to the differences in local conditions they cannot claim to be complete, so that any liabilities - also with a view to claims of third parties - are excluded.