

POLYPRINT RD Conc.

High quality, high concentration thickener for Reactive and Disperse printing

- Properties** : - is compatible with all classes of dyes and natural thickeners except cationic dyestuffs and thickeners due to its anionic charge.
- 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.
 - is extremely easy to use compared with natural thickeners and is specially designed to give consistently super color yield and good coverage.
 - gives an excellent wash ability and has superior shelf life than the others.

Field of application

- Substrate** : cotton, polyester/cotton, polyester
- Aggregate** : rotary printing
- Operation** : Reactive and Disperse printing, also Pigment printing

Characteristics

- Type of product** : polyacrylate dispersion
- Ionic nature** : anionic
- Appearance** : milky viscous liquid

Application

Dissolving method : simply disperses in water in different ratio

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 agent are dissolved in water, then the thickener is added with 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 - 2.5 %
Oxidizing agent	1.0 - 1.5 %
Polyprint RD Conc.	3.0 - 5.0 %
Dyestuff	x%
Water	up to 100%

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.

Preparation of print paste for Disperse printing : A stock paste for printing all types of polyester fabrics with disperse dyes is prepared by mixing the required quantity of the thickener into the water and stirring for about 15 min.. In this case, it may use the thickener up to 7% in order to reach to desirable viscosity and it is not normally necessary to use acid, oxidizing agent or fixation accelerator as is often in the case with natural thickeners. Printing, drying and fixing operations may be carried out in the same manner as with the natural thickeners.

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 : reduction clear at hot water (70-80°C) with :**

1.0 - 2.0 % Sodium hydrosulphite

2.5 – 5.0 % Sodium hydroxide

0.5 – 1.0 % suitable washing agent

- **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 at room temperature.

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.