



# CMS Color Matching System



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## Description

The CMS is a water based color mixing system for brilliant and correct color matches. When combined with the (general purpose base or Discharge base) the results are of bright vivid colors with an amazing soft feel. When printing on white 100% cotton fabrics the cost per print is less than that of plastisol. This is a PVC free pigment system for 100% cotton fabrics.

## Usage

The CMS system is based on a 10% pigment in the formula. Use a PMS mixing color guide or the CCI Color management software. Mix 10% pigment to 90% base. If using the PMS color guide move the decimal point in the guide one digit to the left. Bringing it from 100 to 10. Then follow the formula in the guide and mix 10% pigment to 90% base.

## Example

Follow the color reference guide using the CMS mixing system use 1/10th of the color concentration by the formula to make 100% So in using the guide move the decimal to the left one place. Example: 45.20 move to be 4.520. You now have 10% of the formula. Scale these #'s up to the size of the container. If you want to make 800 grams of ink, then 80 grams will be pigment, take the formula multiple by x8.

## Example

Do not over concentrate the pigment any more than 30% by weight, this can cause problem curing and wash fastness issues.

### Color Recipe for PMS 285

	RFU / Reference Formula	CMS Method
Reflex Blue	37.50	3.75
Pro Blue	12.50	1.25
Mixing White	50.00	5.00
Base		<u>90.0</u>
		100%

**Curing Rate:** 320° Degrees (160° C)

**Fusion Time:** 90 seconds depending on the base. Times can be longer for depending on the curing rate of your dryer.

**Maximum Pigment load:** Not to exceed 30%

**Finish Appearance:** Matte

**Bleed Resistant:** None

**Squeegee:** 70 to 80 Durometer

**Squeegee Angle:** 45 Degrees

**Print Stroke:** Maximum speed, lighter pressure

**Emulsion:** Use WR-25 or WR-14 or a water resistant emulsion

**Underlay:** Discharge white or base with 4 to 6% activator

**Mesh Count:** 86 to 305 mesh

**Modifier / Extender:** Use Retarder 100

**Thinner:** Water

**Clean Up:** Use Envirosolv or soap and water

**Color Range:** Pigments and Florescents

**Substrate Type:** 100% Cotton

**Substrate Color:** Lights or Darks using the Discharge base and 4 to 6% activator

## Recommended Printing Techniques

The screen should have an ample amount of ink in the frame to flood the screen after each print. Always flood the screen to prevent drying in the screen.

- To keep from drying in the screen on longer printer runs, mist a spray of water on the ink to promote wetness of the ink. This will keep it from drying.

- To test best fusion of the garment, wash test to see if you are getting a complete cure from your dryer.

- Always put a lid on your ink even when printing to keep the ink fresh and keep it from drying. Especially on hot days.

Use the Retarder 100 to keep the ink flowing and not drying. Use a maximum of 5% by weight.