

# Coralene

## Disperse Dyes

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D2211

### Product Range

### Application

Coralene Luminous

Disperse dyes imparting fluorescent hues on polyester, for colouration for high visibility polyester fabric.

Coralene C

Disperse dyes for colouration of brilliant hues on polyester.

Coralene S

High energy / High sublimation fast disperse dyes suitable for HTHP Exhaust dyeing, Continuous dyeing and Printing application on polyester and its blends.

Coralene SE

Medium energy / Good to Moderate sublimation fast disperse dyes exhibiting good leveling profile suitable for general application on polyester and its blends.

Coralene E

Low energy / Low sublimation fast disperse dyes with excellent levelling property suitable for piece dyeing of polyester and its blends.

Coralene MD

Compatible range of medium energy disperse dyes for exhaust & continuous dyeing of polyester & it's blends with other fibres

Coralene XF

High wash fast disperse dyes with all round fastness properties suitable for versatile applications.

Coralene HP

High performance disperse dyes with excellent wash fastness properties especially recommended for work wear, sportswear, leisure wear and next to skin outfits.

Coralene LD

Excellent levelling properties. Suitable for dyeing of polyester & it's blends.

Coralene AT

High light and rub fastness disperse dyes suitable for home furnishing and high light fast applications.

Coralene Disperse Dyes



- Eco friendly dyes for colouration of polyester & it's blends

D2211068 / E

## **Coralene dyes on Polyester Eco friendly disperse dyes**

### **1. Introduction:**

Coralene dyestuffs comprise comprehensive range of Azo, Anthraquinone and Quinoline based disperse dyes, suitable for colouration of polyester textiles.

This catalogue illustrates shades, fastness properties and other characteristics of Coralene dyes on 100% polyester fabric.

Coralene dyes illustrated are compliant to ecological regulations.

For more detail, please refer to our booklet on "Eco friendly dyes from Colourtex"

### **2. Classification of Coralene dyes:**

#### **Coralene Luminous:**

Disperse dyes imparting fluorescent hues on polyester, for colouration for high visibility polyester fabric.

#### **Coralene C:**

Disperse dyes for colouration of brilliant hues on polyester.

#### **Coralene S:**

High energy / High sublimation fast disperse dyes suitable for HTHP Exhaust dyeing, Continuous dyeing and Printing application on polyester and its blends.

#### **Coralene SE:**

Medium energy / Good to Moderate sublimation fast disperse dyes exhibiting good leveling profile suitable for general application on polyester and its blends.

#### **Coralene E:**

Low energy / Low sublimation fast disperse dyes with excellent levelling property suitable for piece dyeing of polyester and its blends.

#### **Coralene MD:**

Compatible range of medium energy disperse dyes for exhaust & continuous dyeing of polyester & its blends with other fibres

#### **Coralene XF:**

High wash fast disperse dyes with all round fastness properties suitable for versatile applications

#### **Coralene HP:**

High performance disperse dyes with excellent wash fastness properties especially recommended for work wear, sportswear, leisure wear and next to skin outfits

#### **Coralene LD:**

Excellent levelling properties. Suitable for dyeing of polyester & its blends.

#### **Coralene AT:**

High light and rub fastness disperse dyes suitable for home furnishing and high light fast applications

### **3. Commercial form and dispersion of Coralene dyes:**

Coralene dyes are available in low dusting free flowing powder and in liquid form easily dispersible in soft cold water.

Before dye is added to the dye bath or to the pad liquor, it is

and stirred well. High speed mechanical stirring (<1000 rpm) ensures good dispersion especially when handling large volume of dyes. The dye dispersion should be filtered through fine cloth / fine mesh sieve prior to its addition to the dye bath.

#### 4.0 Dyeing of Coralene dyes on polyester:

##### 4.1 HTHP Exhaust Dyeing

Recommended dye bath recipe:

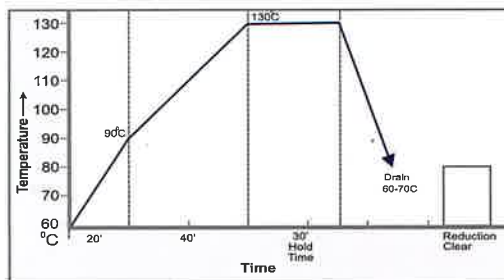
- X % Coralene dyestuff
- 1.0 - 2.0 g/l Levocol 4398 (pH 4.0 - 4.5)
- 0.1 - 1.0 g/l Levocol CSQ
- 0.5 - 1.5 g/l Levocol CDFT / Levocol CPES
- 0.5 - 1.5 g/l Levocol CWS / Levocol DAN
- 3.0 - 4.0 g/l Levocol OA (For Coralene XF and Coralene HP)

Dyeing temperature - 130°C

Hold time at dyeing temperature - 30 to 60 minute

An intermittent rinse at 80 - 90°C before reduction clearing process (refer post treatment, 6.1) is recommended.

##### Dyeing Cycle A

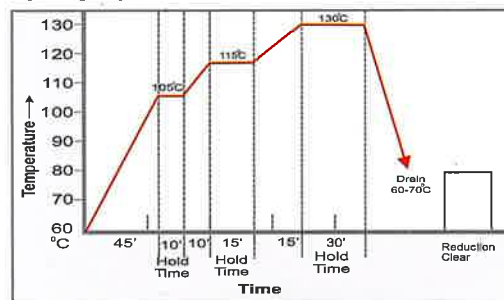


There is a need to take extra care to dye following Coralene dyes.

Coralene	Coralene	Coralene
Luminous Yellow 10GN	Brill. Blue DBR 400%	Brill. Blue SR Conc
Brill. Red BF H/C	Brill. Blue CB Conc	Brill. Blue GSL 400%
Violet 3R Conc	Blue 2R Conc	

Following dyeing cycle is recommended for these dyes.

##### Dyeing Cycle B



Levocol LM-7C is highly recommended for better leveling

#### 4.2 Carrier dyeing:

Selected Coralene dyes having good build up at lower dyeing temperatures can dye polyester up to medium depth at boil in presence of a suitable carrier.

Refer the catalogue for suitable dye selection.

Recommended dye bath recipe:

- X% Coralene dyestuff
- 1.0 - 2.0 g/l Levocol 4398 (pH 4.0 - 5.0)
- 2.0 - 4.0 % Levocol EFC
- 0.1 - 1.0 g/l Levocol CSQ
- 0.5 - 1.5 g/l Levocol CWS / Levocol DAN

Dyeing temperature - 100°C

Hold time at dyeing temperature - 60 to 120 minute

An intermittent rinse at 80-90°C before reduction clearing process (refer post treatment, 6.1) is recommended for removal of carrier.

#### 4.3 Thermosol dyeing:

High sublimation fast Coralene dyes are suitable for Pad - Dry - Thermosol application on polyester and its blends.

Pad liquor preparation -

- X g/l Coralene dyestuff
- Y g/l Levocol 4398 (pH 4.5 - 5.5)
- 1.0 - 2.0 g/l Levocol CWS
- 10.0 - 15.0 g/l Levocol AMK
- 1.0 - 2.0 g/l Levocol NF
- 2.0 - 3.0 g/l Levocol OA

Recipe composition and proportion of the ingredients may change as per

- Nature of substrate
- Liquor pick up
- Mangle hardness / rpm / pressure

Padded and dried material is subjected to dry heat fixation (Thermosol) at 190-210°C for 30-90 second, depending upon the depth of the shade, material weight & equipment. Treated goods are to be thoroughly rinsed and reduction cleared. Pre trials are necessary in case Coralene SE class dyes are chosen.

#### 5 Printing

Coralene Luminous, C, S and selected SE class dyes, are recommended for print application on polyester.

## 5.1 Direct Printing:

### Print paste recipe:

- X g Coralene dyes (pre-dispersed in soft water)
- 650 g Printex CT-MS stock thickener (pH 4.0 with Levocol 4398)
- 3 - 5 g Levocol ECLA (For HT steaming only)
- 5 - 10 g Levocol CKBI
- 5 - 10 g Levocol OA
- Y g Water / Printex CT-MS stock thickener
- 1000 g Total

### Fixation of prints-

- High pressure steaming  
Coralene S, SE and selected Coralene E dyes are suitable for development by steam fixation at 30 psi for 30 - 45 minute in pressure ager. Please refer instructions in the catalogue for related guidance. Pre trials are needed to ensure optimum results in case of Coralene E class dyes and sensitive dyes like Coralene Brill. Blue SR Conc, Coralene Brill. Blue CB Conc, Coralene Brill. Blue GR-XF.
- High temperature fixing  
Printed goods can be steamed at 165 - 175°C for 8-10 minute in HT loop steamer.

## 5.2 Discharge resist printing

Coralene dyes with dischargeability rating of D (please refer the catalogue) are suitable for discharge resist printing. The rating D implies that these Coralene dyes are suitable as ground shades and are dischargeable with sodium / zinc sulfoxylate formaldehyde. Coralene dyes with dischargeability rating of ND are suitable as illuminant dyes.

Pre trials are recommended for establishing reproducible and consistent performance of the whole system as many factors are influencing the process.

### 5.2.1 Preparation of dischargeable ground by Pad – Dry process

Dischargeable Coralene S class and selected SE class dyes are suitable for Pad - HTHP / HT steam fixation application on polyester.

Recipe for padding liquor-

- X g Coralene dyes
- Y g Levocol 4398 (pH 4)
- 3 g Levocol ECLA
- 15 g Levocol AMK or
- 50 g Printex CT-MS (8% neutral stock thickening)
- 10 - 20 g Levocol OA
- Z g Water / Printex CT-MS stock thickener

Padded goods are dried at 100 - 110°C and processed further for discharge printing.

### 5.2.2 White discharge recipe:

- 5 g Coralene White R Liquid
- 500 g Printex CT-MS (8% neutral stock thickening)
- 100 - 200 g Zinc sulfoxylate formaldehyde
- 20 - 30 g Levocol P 400
- Y g Water / Printex CT-MS stock thickener
- 1000 g Total

1:1 mixture of Zinc sulfoxylate formaldehyde and Sodium sulfoxylate formaldehyde improves the dischargeability and whiteness of ground shade.

### 5.3.3 Illuminant discharge resist recipe:

- X g Coralene non dischargeable dyes
- 500 g Printex CT-MS (8% neutral stock thickening)
- 100 - 200 g Zinc sulfoxylate formaldehyde / Sodium sulfoxylate formaldehyde
- 5 - 10 g Levocol 4398 (pH 4 - 5)
- 3 - 5 g Levocol ECLA – promotes illuminant dye fixation
- 10 - 20 g Levocol P 400
- Y g Water / Printex CT-MS stock thickener
- 1000 g Total

- HT steam fixation at 165 – 175°C for 8 – 10 minute
- Pressure steaming conditions – Treat in 5 -10 minute running steam followed by pressure steaming at 130°C for 30 - 45 minute.

## 6.0 Post treatment: (After treatment)

**6.1 Post treatment for exhaust dyeing:** Dyed material should be thoroughly rinsed in hot bath and then reduction clearing is carried out at 70 - 80°C for 20 minute in a bath containing:

- 2.0 g/l Caustic soda (solid)
- Or 4.0 - 5.0 m/l Caustic soda solution (32.5% or 38°Be)
- 2.0 - 3.0 g/l Sodium hydrosulphite
- 0.25 - 0.50 g/l Levocol CDFT / Levocol CPC

This is followed by rinse in cold bath and neutralization / acidification of material with Levocol 4398 / Levocol CUDI. A second reduction clearing is recommended for deep shades to ensure good multifiber staining fastness. Final pH of fabric should be mildly acidic.

## 6.2 Post treatment for continuous dyeing (Pad – Steam)

Pad the fabric with:

25 - 60 gpl Hydrosulfite

25 - 40 gpl Caustic soda (Lye)

And steam for 60 - 90 seconds with saturated steam @ 98°C, followed by soaping and rinsing in continuous washer range.

## 6.3 Post treatment for printed fabric:

Printed fabric is washed in a continuous washer range either in rope form or in open width. Fabric is wetted well and immersed in bath containing reserving agent for 10 – 15 minute before starting washing operation. Composition of reduction clear bath is as follows:

2.0 g/l Caustic soda (solid)

Or 4.0 - 5.0 ml/l Caustic soda solution (32.5% or 38°Be )

2.0 - 3.0 g/l Sodium hydrosulphite

1.0 g/l Levocol CDFT / Levocol CPC

Treatment time of at-least 2-3 minute should be ensured in each bath.



## 7.0 Auxiliary chemicals recommended for polyester processing :

- Levocol 4398** High temperature stable acid donor
- Levocol NF** De-aerating & Penetrating agent
- Levocol CSQ** Sequestering agent
- Levocol CUDI** Sequestering agent especially for iron chelation
- Levocol CWS** Universal dispersing agent
- Levocol DAN** Specialty high temperature stable liquid dispersing agent with oligomers dispersing property
- Levocol EFC** Eco friendly carrier for low temperature dyeing of disperse dyes on polyester
- Levocol CDFT** Versatile levelling cum retarding agent for disperse dyeing on polyester
- Levocol CPES** Effective leveling agent for disperse dyeing system
- Levocol CPC** Powerful washing off and reserving agent of disperse prints
- Levocol P 400** Print paste additive for even penetration of dye in fiber
- Levocol OA** Mild oxidizing agent to protect reduction of dyes

- Levocol CKBI** Anti-frothing agent, promotes print levelness
- Levocol ECLA** High performance printing accelerator for high temperature fixation in loop steamer
- Levocol AMK** Anti migrating agent
- Printex CT-MS** Eco-friendly TKP based, low viscosity printing thickener for polyester.

## 8.0 Fastness Properties

The fastness properties of 1/1 SD dyed on 80D/36F 100% polyester knit are evaluated post set at 180°C X 30 second in accordance with the standards established by the International Organization for Standardization (ISO) and American Association for Textile Chemist & Colourist (AATCC).

For Navy and Black dyestuff are evaluated as Navy and Black shades.

### 8.1 Light AATCC 16 Option 3 and ISO 105 B02

1/1 SD. Dyeings exposed to xenon light as per specification

**Rating (AATCC):** from 1 to 5, 1 for the least and 5 for the highest light fastness

**Rating (ISO):** Evaluated upto blue wool rating grade 6 from 1 to 8, 1 for the least and 8 for the highest light fastness.

### 8.2 Dry heat fixation ISO 105 PO1

Heat contact of 1/1 SD Dyeing at 180°C for 30 seconds.

Rating of 1 to 5 as per staining on polyester

### 8.3 Wash ISO 105 C10 : C

On 1/1 sd. with 5gpl. soap. 2 gpl soda ash at 60°C for 30 mins. Staining on PES, PA, Cotton (multifibre) are rated 1 to 5 on Grey scale.

### 8.4 Perspiration ISO 105 - E04

Acidic and Alkaline perspiration fastness measured as per the procedure specified.

Staining on PES, PA, Cotton have been measured as 1 to 5 on grey scale.

### 8.5 Rubbing ISO 105 - X 12

Dry and wet Rub fastness of 1/1 SD dyeing measured on crock meter as per procedure. 10 strokes to & fro.

### 8.6 Fastness to laundering ISO 105 C06:C2S

4 gpl ECE detergent, 1 gpl sodium perborate at 60°C / 30 min. with 25 steel balls with MLR 1:50

### 8.7 Fastness to washing AATCC 61-2A, 49°C

0.15 gpl AATCC detergent (WOB) at 49°C / 45 min. with 50 steel balls with MLR 1:150

### 8.8 Perborate washing M & S C 4 A : 60°C

4 gpl ECE detergent, 1 gpl sodium perborate at 60°C / 30 min. with ML 1:50

### 8.9 Fastness to washing Adidas 5.01 (60°C)

4 gpl ECE (AATCC) detergent, 1 gpl sodium carbonate. M:L ratio 1:9 at 60°C / 30 min. with 25 steel balls. pH 10.5+/-0.1

### 9.0 General properties

#### 9.1 Leveling at 130°C

Based on laboratory trials conducted on polyester yarn package, running the dye liquor (1/1 SD of each dye) from inside out in HT/HP package dyeing machine for 30 minute at 130°C and studying the dye build up across the dyed yarn package, the dyestuff leveling property assessed and rated accordingly.

#### 9.2 Rate of dyeing

% exhaustion of Coralene dye on polyester is plotted against dye bath temperature as well as time of dyeing. Bath is held at 130°C for up to 30 minute. Respective exhaust levels against temperature of dyeing are calibrated on the basis of final depth of shades as 100%. The data enables the dyer to identify critical temperature zones (C.T.Z.) of each dye for better control of dyeing time & temperature as well as in selection of compatible dyes for on-tone dyeing.

#### 9.3 Saturation curve

Gradation dyeing from light to dark depth of Coralene dye were carried out on 100% polyester knitted fabric at 130°C / 30 minute under standard laboratory working conditions. The K/S values derived from spectral reflectance of each level was plotted against corresponding dye concentration.

The curve shows the build-up behaviour of Coralene dyes on polyester. After an initial rise the curve flattens. Dye concentration on the X axis corresponding to this point on the curve is dye / substrate specific and is referred to as saturation value. It may vary significantly on the nature of dye application and to substrate as well. The exhaustion and saturation values have to be reworked accordingly.

### 10. Evaluation of fastness rating:

C.O.S. - Change of shade / CA - Staining on cellulose acetate /

PA - Staining on Polyamide/ PES - Staining on polyester /

CO - Staining on Cotton / WO - Staining on Wool

Rating: 5 - Excellent / 4 - Very good / 3 - Good / 2 - Fair / 1 - Poor

### 11. Abbreviations:

● - Suitable

◐ - Limited suitability

○ - Not suitable

R - Redder / B - Bluer / Y - Yellower

G - Good / M - Moderate / P - Poor / L - Low

D - Dischargeable / ND - Non dischargeable /

ND\* / - Partially dischargeable

⊕ - Can be recommended for polyester thread dyeing

NR - Not recommended

Product and the process information in this booklet is provided in good faith and without liability in consideration of the variables affecting the dye performance on the shop floor, dyestuff application and use are beyond our control. Adequate trials need to be conducted in bulk to ensure desired dyestuff performance.

#### Note:

The German regulation sets standards for ecological profiles of dyed, printed and finished textiles.

The textile quality, besides the dyestuff, also depends on other variables like substrates, dyeing and printing process, pre and post treatment, auxiliaries, finishing chemicals used and conditions of storage.

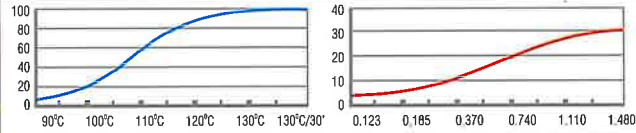
PATTERNS

1/1 SD  
Dyeing  
on  
Polyester  
Knit

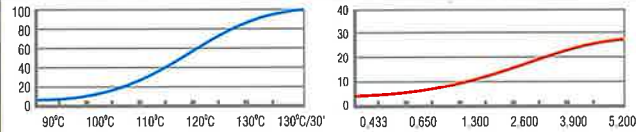
Coralene  
Luminous Dyes

Rate of Dyeing Curve  
(% Strength vs Temp.)

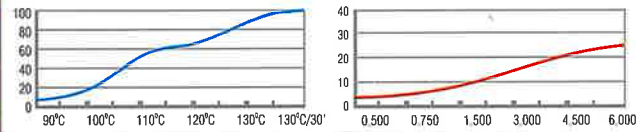
Saturation Curve  
(K/S vs Conc.)



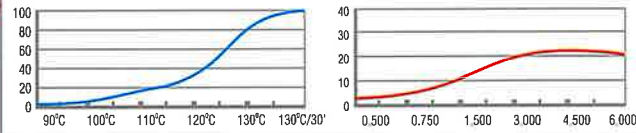
0.37% T-032790120 Luminous Yellow 10GN (Disp. Yellow 184:1)



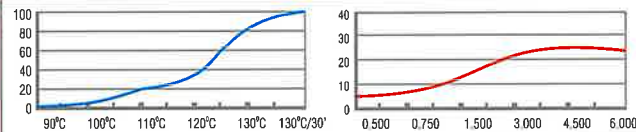
1.30% T-032590126 Brill. Yellow F-8GFF (Disp. Yellow 82)



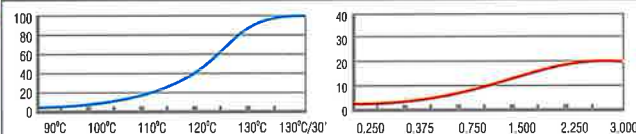
1.50% T-033930117 Luminous Orange F-CR (Disp. Orange Mix)#



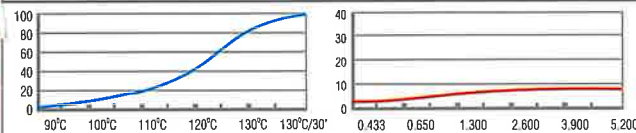
1.50% T-034460116 Luminous Red G (Disp. Red 277)#



1.20% T-034460126 Luminous Red G H/Conc (Disp. Red 277)#



0.75% T-034460120 Luminous Red J#

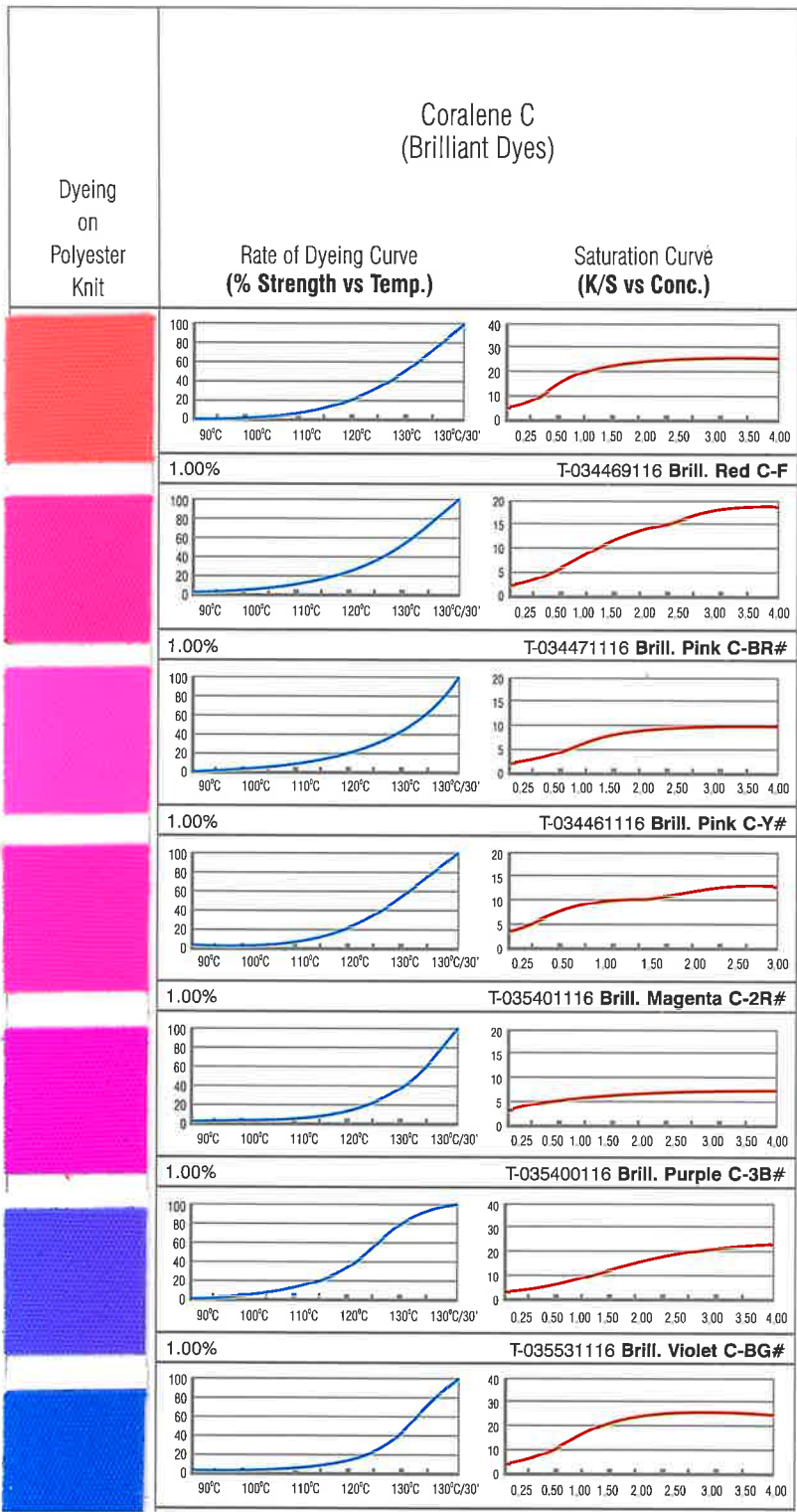


1.00% T-032590127 Luminous Pink F# (Disp. Red 264)

AATCC 16 Option 3 - 20 AFU	Light Fastness	ISO 105 B02	Sublimation ISO 105 P01		Wash ISO 105 C10-C 60°C	Water ISO 105 E01	Perspiration ISO 105 E04		Crocking ISO 105 X12	pH Range in Dyeing	Leveling at 130°C	Suitability Dyeing		Suitability Printing		Thermosol Temp. Range	
			180°C / 30S (PES)	CO			PA	CO				Acidic CO	Alkaline CO	Dry WET	Yarn / Fibre		Carrier Dyeing 100°C
4		4-5	4	4-5	4	4-5	4-5	4-5	4-5	4.0-5.0	G	●	○	●	●	--	200-210°C
3.5		3-4	4	4-5	4	4-5	4-5	4-5	4-5	4.0-5.0	G	○	○	●	●	ND	200-210°C
4		3-4	4-5	4-5	4	4-5	4-5	4-5	4-5	4.0-5.0	G	●	○	●	●	--	200-210°C
3		3	4-5	4-5	3-4	4-5	4-5	4-5	4-5	4.0	M	●	○	●	●	--	200-210°C
3		3	4-5	4-5	3-4	4-5	4-5	4-5	4-5	4.0	M	●	○	●	●	--	200-210°C
2.5		2-3	4	4-5	4-5	4-5	4-5	4-5	4-5	3.0-5.0	M	●	○	●	●	--	200-210°C
4		5	3-4	4-5	4	4-5	4-5	4-5	4-5	3.0-7.0	M	○	○	●	●	ND	200-210°C







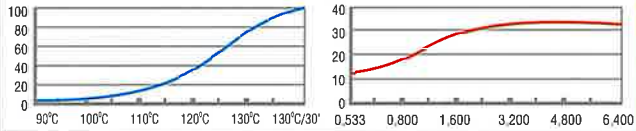
Light Fastness as per AATCC 16 Option 3	Sublimation ISO 105 P01	Wash ISO 105 C10-C 60°C	Water ISO 105 E01	Perispiration ISO 105 E04		Crocking ISO 105 X12	pH Range in Dyeing	Levelling at 130°C	Suitability Dyeing		Suitability Printing		Thermosol Temp. Range	
				Acidic	Alkaline				Yarn / Fibre	Carrier Dyeing 100°C	Pressure Steaming	High Temp. Steaming		Dischargeability
20 AFU	180°C / 30S (PES)	PES PA CO	PES PA CO	PES PA CO	PES PA CO	Dry WET								
3.0	4-5	4 2-3 4-5	4 3-4 4-5	4 2-3 4-5	3-4 2-3 4-5	4 4-5	4.0	G	●	○	●	●	-	200-210°C
2.5	4	4-5 3-4 4-5	4-5 4-5 4-5	4 4 4-5	4 4 4-5	3-4 4	4.0	G	●	○	●	●	-	200-210°C
3.0	4-5	4-5 3 4-5	4-5 3-4 4-5	4-5 3-4 4-5	4 3-4 4-5	4 4	4.0	G	●	○	●	●	-	200-210°C
3.0	4-5	4-5 4 4-5	4-5 3-4 4	4-5 3-4 4-5	4 3 4	3-4 4	4.0	M	●	○	○	●	-	200-210°C
2.5	4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5	3.0-4.0	M	●	○	○	●	D	200-210°C
2.0	4-5	4-5 3-4 4-5	4-5 4-5 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4-5	4.0	G	●	○	●	●	D	200-210°C
1.5	4-5	4-5 4 4-5	4-5 4-5 4-5	4-5 4 4-5	4-5 4 4-5	4 4	4.0	M	●	○	○	●	D	200-210°C

# Coralene S High Energy Dyes

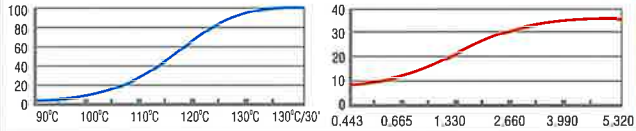
1/1 SD  
Dyeing  
on  
Polyester  
Knit

Rate of Dyeing Curve  
(% Strength vs Temp.)

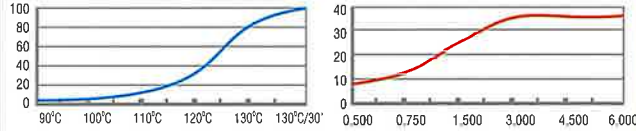
Saturation Curve  
(K/S vs Conc.)



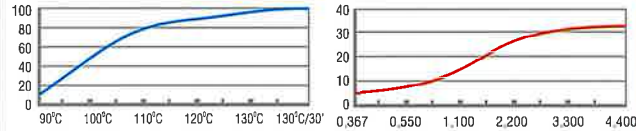
0.85% T-032620116 - Yellow SG H/C (Disp. Yellow 114)



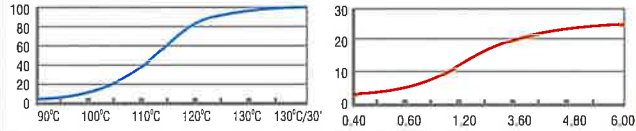
1.33% T-033320116 Orange SG 150% (Disp. Orange 73)



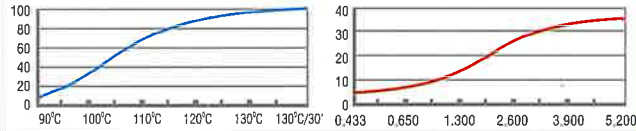
1.00% T-033260117 Orange 3R 150% (Disp. Orange 44)



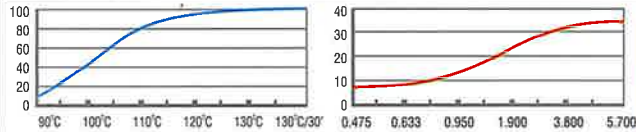
1.33% T-033340120 Yellow Brown 2RLS 150% (Disp. Orange 30)



1.20% T-033250118 Yellow Brown REL (Disp. Orange 61)



1.30% T-034720116 Brown 3RSF H/C (Disp. Red 118)



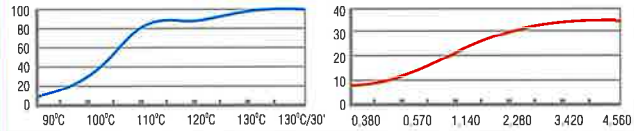
AATCC 16 Option 3 - 20 AFU	Light Fastness	ISO 105 B02	Sublimation ISO 105 P01		Wash ISO 105 C10-C 60°C	Water ISO 105 E01	Perspiration ISO 105 E04		Crocking ISO 105 X12	pH Range in Dyeing	Levelling at 130°C	Suitability Dyeing		Suitability Printing		Thermosol Temp. Range	
			180°C / 30S (PES)	CO			Acidic PES	Alkaline PES				Yarn / Fibre	Carrier Dyeing 100°C	Pressure Steaming	High Temp. Steaming		Dischargeability
4	6	4-5	4-5 4-5 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4 4 4	4.0-6.0	G	●	○	●	●	-	200-210°C
4	6	4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	3.0-7.0	G	●	○	●	●	D	200-210°C
4	6	4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	3.0-7.0	G	●	○	●	●	D	200-210°C
4	6	4-5	4-5 4-5 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	3.0-7.0	G	●	○	●	●	D	200-210°C
4	5-6	4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	3.0-7.0	G	●	○	●	●	D	200-210°C
4	5	4-5	4-5 3-4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4 4 4	4 4 4	3.0-7.0	G	●	○	●	●	D	200-210°C
4	6	4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	3.0-7.0	G	●	○	●	●	D	200-210°C

1/1 SD  
Dyeing  
on  
Polyester  
Knit

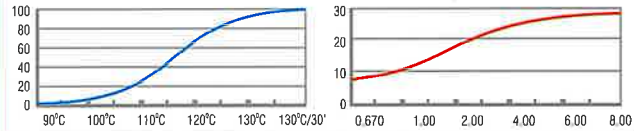
Coralene S  
High Energy Dyes

Rate of Dyeing Curve  
(% Strength vs Temp.)

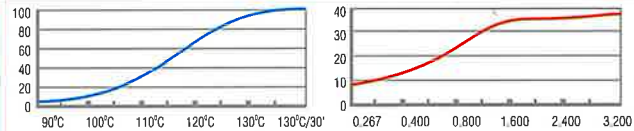
Saturation Curve  
(K/S vs Conc.)



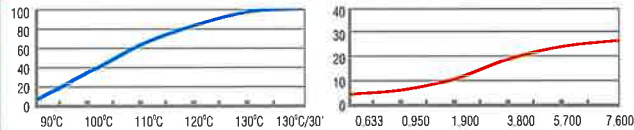
1.14% T-034310116 **Scarlet GLS 150%** (Disp. Red 54)



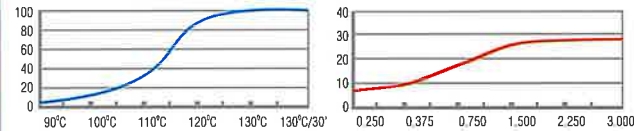
2.00% T-034290116 **Brill. Red RGL** (Disp. Red 202)



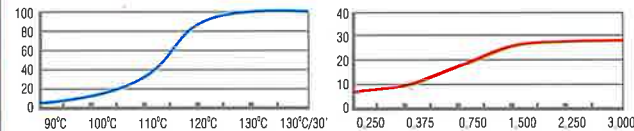
0.80% T-034490116 **Red F3BS 150%** (Disp. Red 343)



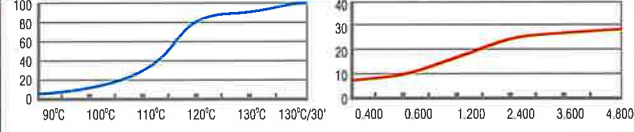
4.00% T-034260118 **Red BEL** (Disp. Red 92)



0.90% T-034740116 **Rubine S-2G 150%** (Disp. Red 167:1)



1.50% T-034740117 **Rubine S-2GLW** (Disp. Red 167:1)



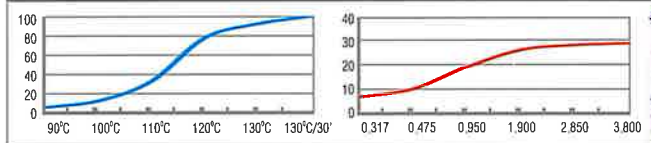
AATCC 16 Option 3 - 20 AFU	Light Fastness	ISO 105 B02	Sublimation ISO 105 P01		Wash ISO 105 C10:C 60°C	Water ISO 105 E01	Perspiration ISO 105 E04		Crocking ISO 105 X12	pH Range in Dyeing	Leveling at 130°C	Suitability Dyeing		Suitability Printing		Thermosol Temp. Range	
			180°C / 30S (PES)	CO			PA	CO				Acidic CO	Alkaline CO	Yarn / Fibre	Carrier Dyeing 100°C		Pressure Steaming
4-5	6	4	4-5 4	4-5 4-5	PES PA CO	PES PA CO	PES PA CO	PES PA CO	4-5 4-5 4-5	3.0-7.0	G	●	●	●	●	D	200-210°C
4	6	4-5	4-5 4	4-5 4-5	4-5 4	4-5 4	4-5 4	4-5 4	4-5 4-5	3.0-7.0	G	●	○	●	●	D	200-210°C
4	6	4	4-5 4	4-5 4-5	4-5 4	4-5 4	4-5 4	4-5 4-5	4-5 4-5	3.0-7.0	G	○	○	●	●	D	200-210°C
4	6	4-5	4 3-4 4	4-5 4	4-5 4	4-5 4	4-5 4	4-5 4-5	4 4-5	3.0-7.0	G	○	○	NR	●	ND	200-210°C
3.5	6	4-5	4-5 4	4-5 4-5	4-5 4	4-5 4	4-5 4	4-5 4-5	4-5 4-5	3.5-5.5	G	●	○	●	●	D	200-210°C
3.5	6	4-5	4-5 4	4-5 4-5	4-5 4	4-5 4	4-5 4	4-5 4-5	4-5 4-5	3.5-5.5	G	●	○	●	●	D	200-210°C
4	6	4	4-5 4	4-5 4-5	4-5 4	4-5 4	4-5 4	4-5 4-5	4-5 4-5	3.0-7.0	G	●	○	●	●	D	200-210°C

## Coralene S High Energy Dyes

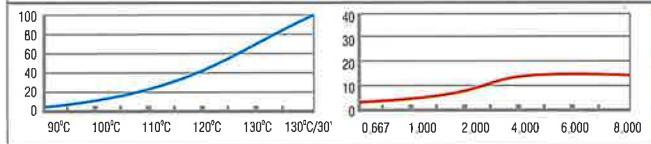
1/1 SD  
Dyeing  
on  
Polyester  
Knit

Rate of Dyeing Curve  
(% Strength vs Temp.)

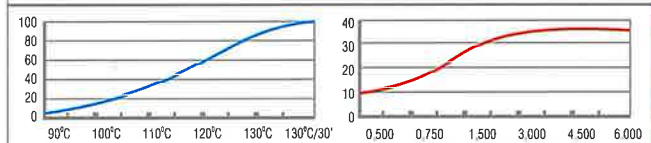
Saturation Curve  
(K/S vs Conc.)



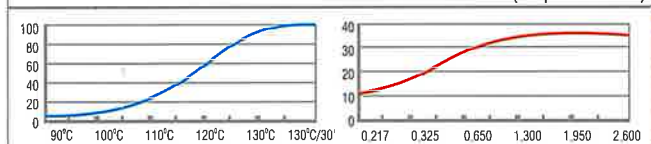
0.95% T-035510116 **Violet S3R** (Disp. Violet 63)



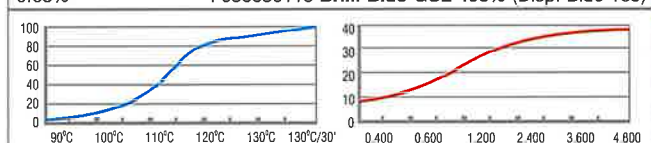
2.00% T-036830116 **Brill. Blue CB Conc#**



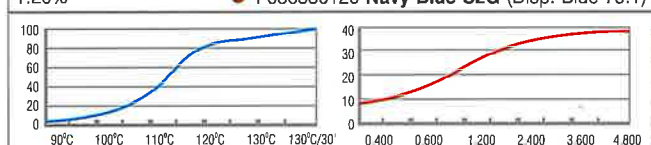
1.00% T-036880120 **Brill. Blue SR Conc** (Disp. Blue 354)



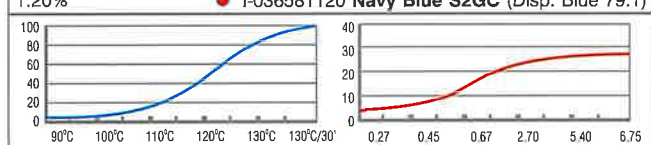
0.65% T-036630118 **Brill. Blue GSL 400%** (Disp. Blue 165)



1.20% T-036580120 **Navy Blue S2G** (Disp. Blue 79:1)



1.20% T-036581120 **Navy Blue S2GC** (Disp. Blue 79:1)



1.20% T-036581120 **Navy Blue S2GC** (Disp. Blue 79:1)



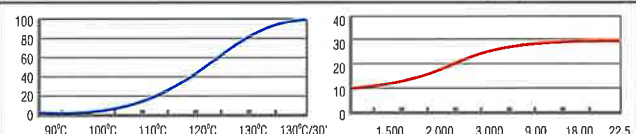
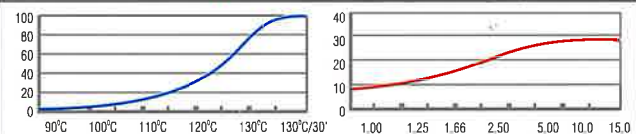
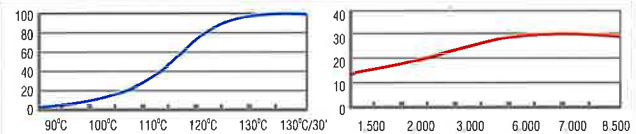
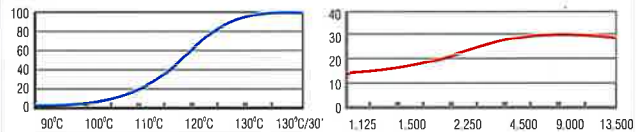
AAOTC 16 Option 3 - 20 AFU	Light Fastness	ISO 105 P01		Water ISO 105 E01	Perspiration ISO 105 E04		Crocking ISO 105 X12	pH Range in Dyeing	Levelling at 130°C	Suitability Dyeing		Suitability Printing		Thermosol Temp. Range		
		Sublimation ISO 105 P01	Wash ISO 105 C10-C 60°C		Acidic	Alkaline				Yarn / Fibre	Carrier Dyeing 100°C	Pressure Steaming	High Temp. Steaming		Dischargeability	
4	4-5	4	4-5 4 4-5	PES PA CO	PES PA CO	PES PA CO	PES PA CO	4-5 4-5 4-5	3.0-7.0	G	●	○	●	●	D	200-210°C
2	3	4-5	4-5 4-5 4-5	PES PA CO	PES PA CO	PES PA CO	PES PA CO	4-5 4-5 4-5	3.0-4.0	M	●	○	○	●	D	200-210°C
2.5	3	5	4-5 4-5 4-5	PES PA CO	PES PA CO	PES PA CO	PES PA CO	4-5 4-5 4-5	4.0-5.0	M	●	○	○	●	D	200-210°C
4	6	4	4-5 4-5 4-5	PES PA CO	PES PA CO	PES PA CO	PES PA CO	4-5 4-5 4-5	4.0-8.0	M	NR	○	●	●	D	200-210°C
4	4	4-5	4-5 4-5 4-5	PES PA CO	PES PA CO	PES PA CO	PES PA CO	4-5 4-5 4-5	3.5-4.5	G	●	○	●	●	D	200-210°C
4	4	4-5	4-5 4-5 4-5	PES PA CO	PES PA CO	PES PA CO	PES PA CO	4-5 4-5 4-5	3.5-4.5	G	●	○	●	●	D	200-210°C
4.5	4	4-5	4-5 4-5 4-5	PES PA CO	PES PA CO	PES PA CO	PES PA CO	4-5 4-5 4-5	3.5-4.5	G	●	○	●	●	D	200-210°C

1/1 SD  
Dyeing  
on  
Polyester  
Knit

Coralene S  
High Energy Dyes

Rate of Dyeing Curve  
(% Strength vs Temp.)

Saturation Curve  
(K/S vs Conc.)



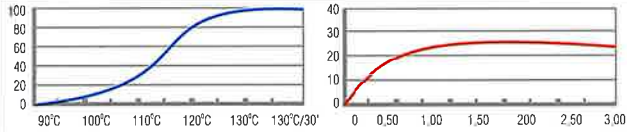
AAATCC 16 Option 3 - 20 AFU	Light Fastness	Sublimation ISO 105 P01		Wash ISO 105 C10:C 60°C	Water ISO 105 E01	Perspiration ISO 105 E04		Crocking ISO 105 X12	pH Range in Dyeing	Leveling at 130°C	Suitability Dyeing		Suitability Printing		Thermosol Temp. Range	
		180°C / 30S (PES)	CO			Acidic	Alkaline				Yarn / Fibre	Carrier Dyeing 100°C	Pressure Steaming	High Temp. Steaming		Dischargeability
5	5-6	4	4	4	4	4	4	4-5	4.0-5.0	G	●	○	●	●	D	200-210°C
5	5	4	4-5	4-5	3-4	4-5	4-5	4	4.0-5.0	G	●	○	●	●	D	190-200°C
4.5	5	4-5	4	4-5	3-4	4-5	4-5	4	4.0-5.0	G	●	○	●	●	D	200-210°C
5	5	4-5	4	4-5	3-4	4-5	4-5	3-4	3.5-4.5	G	●	○	●	●	D	200-210°C

# Coralene SE Medium Energy Dyes

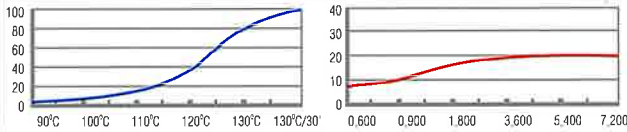
1/1 SD  
Dyeing  
on  
Polyester  
Knit

Rate of Dyeing Curve  
(% Strength vs Temp.)

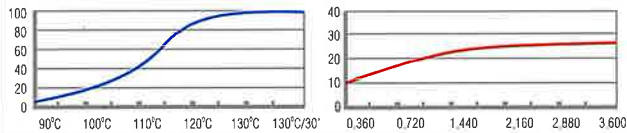
Saturation Curve  
(K/S vs Conc.)



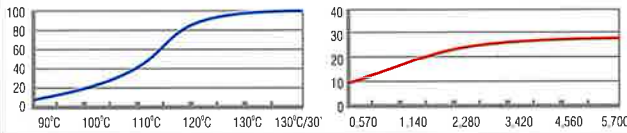
0.25% T-032070117 **Yellow C5G H/C** (Disp. Yellow 119)



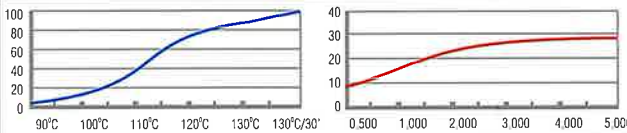
1.80% T-032200117 **Yellow C4G H/C** (Disp. Yellow 79)



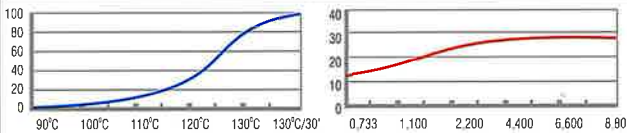
0.72% T-032050116 **Brill.Yellow 4GNL-SE** (Disp. Yellow 211)



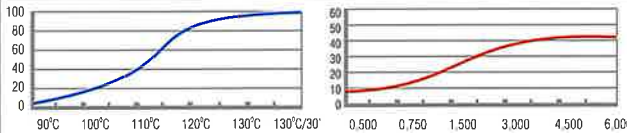
1.00% T-034610120 **Scarlet GS H/C** (Disp. Red 153)



1.00% T-034510116 **Scarlet 2B-LS** (Disp. Red 74)



0.85% T-034790117 **Red BS 220%** (Disp. Red 152)



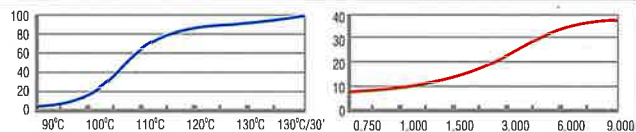
AATCC 16 Option 3 - 20 AFU	Light Fastness	ISO 105 B02	Sublimation ISO 105 P01		Wash ISO 105 C10:C 60°C	Water ISO 105 E01	Perspiration ISO 105 E04		Crocking ISO 105 X12	pH Range in Dyeing	Levelling at 130°C	Suitability Dyeing		Suitability Priming		Thermosol Temp. Range	
			180°C / 30S (PES)	CO			PA	CO				Acidic	Alkaline	Dry	Yarn / Fibre		Carrier Dyeing 100°C
4	6	4	4-5 4-5 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5	4.0-5.5	G	●	○	●	●	D	200-210°C
4	6	4	4-5 4 4	4 3-4 3-4	4 3-4 3-4	4-5 4 4	4-5 4 4	4-5 3 3-4	4-5	3.0-6.0	G	●	●	●	●	D	200-210°C
4	6	4	4-5 4 4-5	4 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5	3.0-6.0	G	●	●	○	○	-	200-210°C
4	5	4	4-5 4 4-5	4 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5	3.0-7.0	G	●	●	●	●	D	200-210°C
4	5	4-5	4-5 4-5 4-5	4-5 3-4 4-5	4 4 4	4-5 3-4 4	4 3-4 4	4 3-4 4	4-5	4.0-6.0	G	●	○	●	●	D	200-210°C
4	5	4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5	3.0-7.0	G	●	●	●	●	D	200-210°C
4	6	3-4	4-5 3-4 4-5	3-4 3 3-4	4 3 3-4	4-5 3-4 4-5	4 3-4 3-4	4 3-4 4-5	4-5	3.0-7.0	M	●	●	●	●	ND	200-210°C

1/1 SD  
Dyeing  
on  
Polyester  
Knit

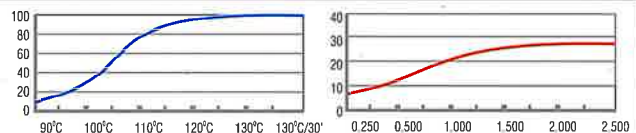
Coralene SE  
Medium Energy Dyes

Rate of Dyeing Curve  
(% Strength vs Temp.)

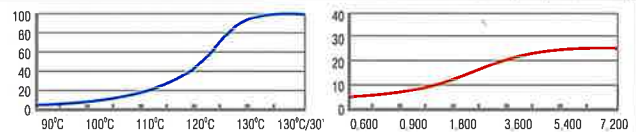
Saturation Curve  
(K/S vs Conc.)



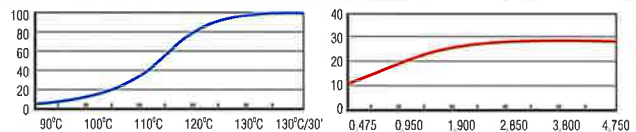
1.50% T-034780116 Red 2B-LS (Disp. Red 82)



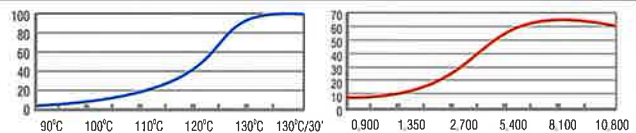
0.50% T-034340116 Rubine GFL (Disp. Red 73)



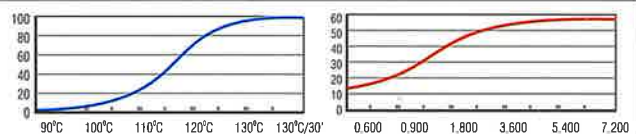
1.80% T-035390126 Red Violet IFBL 200% (Disp. Violet 26)



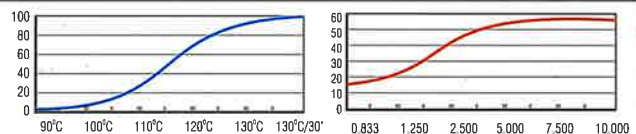
0.95% T-035460116 Violet 3R Conc (Disp. Violet 99)



2.70% T-036560116 Brill. Blue BG 200% (Disp. Blue 60)



0.90% T-036770116 Brill. Blue DBR 400% (Disp. Blue 366)



0.90% T-036770116 Brill. Blue DBR 400% (Disp. Blue 366)

AATCC 16 Option 3 - 20 AFU	Light Fastness ISO 105 B02	Sublimation ISO 105 P01 180°C / 30S (PES)	Wash ISO 105 C10-C 60°C PA CO	Water ISO 105 E01 PES CO	Perspiration ISO 105 E04		Crocking ISO 105 X12 Dry WET	pH Range in Dyeing	Levelling at 130°C	Yarn / Fibre	Carrier Dyeing 100°C	Pressure Steaming	High Temp. Steaming	Dischargeability	Thermosol Temp. Range
					Acidic PES CO	Alkaline PES CO									
4-5	4	4	4 3-4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 3-4 4-5	4-5 4-5	4.0-6.0	G	●	○	●	●	D	200-210°C
4	6	4	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4-5	3.0-6.0	G	●	○	●	●	D	200-210°C
4	5-6	4	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4-5	3.0-7.0	M	●	○	●	●	ND	200-210°C
4	5	3	4-5 4-5 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4-5	4.0-7.0	M	●	○	●	●	D	200-210°C
4	6	3-4	4-5 4-5 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4-5	3.5-7.0	G	●	○	●	●	ND*	200-210°C
4	5-6	3	4 3-4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4 4-5	4-5 4-5	4.0-6.0	M	●	○	●	●	D	200-210°C
4	5	4	4 3-4 4-5	4 4 4-5	4 4 4-5	4 4 4-5	4-5 4-5	3.0-9.0	G	○	○	●	●	D	190-200°C

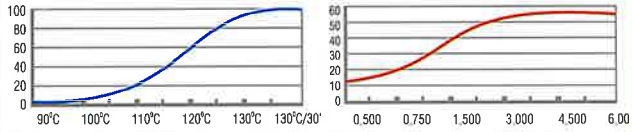


Coralene SE  
Medium Energy Dyes

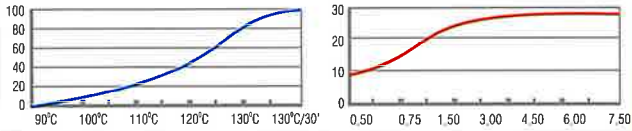
1/1 SD  
Dyeing  
on  
Polyester  
Knit

Rate of Dyeing Curve  
(% Strength vs Temp.)

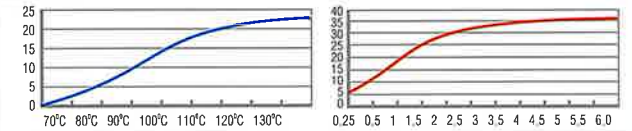
Saturation Curve  
(K/S vs Conc.)



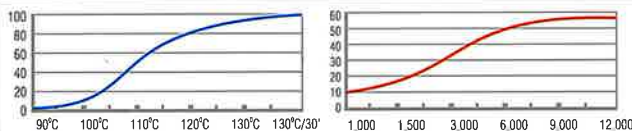
1.50% T-036510120 Blue 2R Conc (Disp. Blue 183)



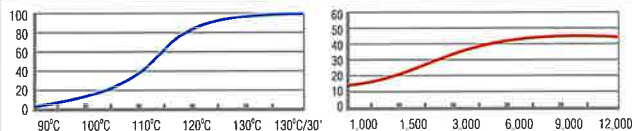
1.50% T-036510126 Blue 3R (Disp. Blue 183.1)



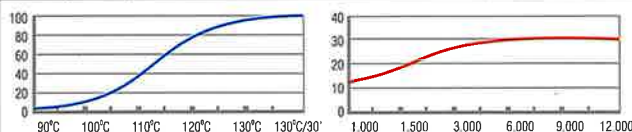
1.50% T-036550116 Dark Blue 3RT (Disp. Blue 148)



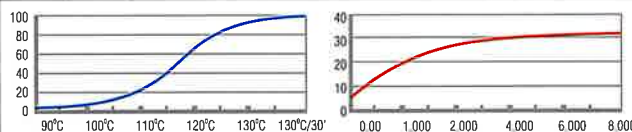
1.35% T-036820219 Navy Blue EX-SF 300% (Disp. Blue Mix)



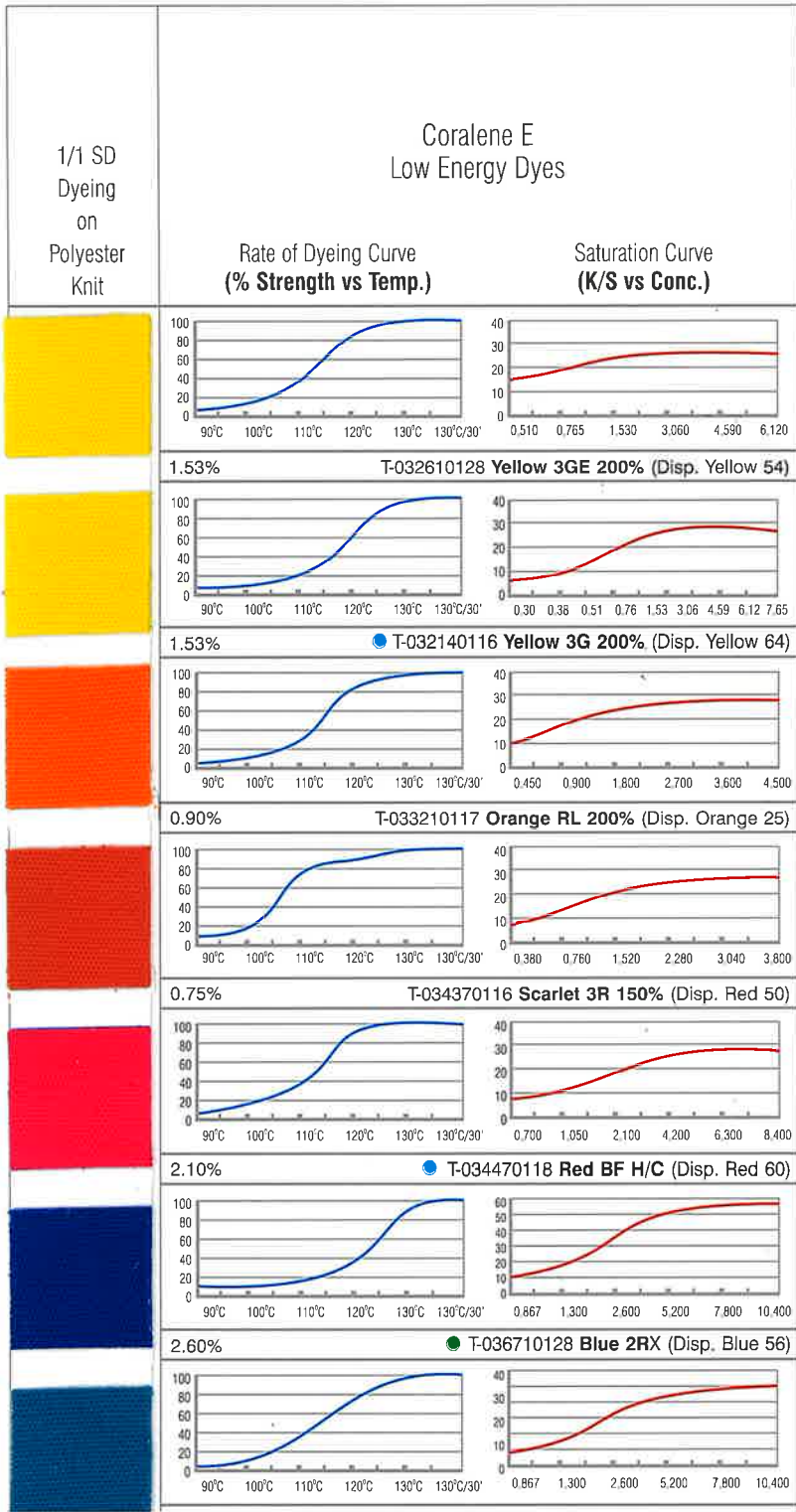
3.00% (2/1 SD) T-039420216 Black EX-SF 300% (Disp. Black Mix)#



3.00% (2/1 SD) T-039283116 Black 2RC (Disp. Black Mix)#



AATCC 16 Option 3 - 20 AFU	Light Fastness	ISO 105 B02	Sublimation ISO 105 P01		Wash ISO 105 C10C 60°C		Water ISO 105 E01		Perspiration ISO 105 E04		Crooking ISO 105 X12	pH Range in Dyeing	Levelling at 130°C	Suitability Dyeing		Suitability Printing		Thermosol Temp. Range	
			180°C / 30S (PES)	CO	PES	CO	PES	CO	Acidic	Alkaline				Dye	Yarn / Fibre	Carrier Dyeing 100°C	Pressure Steaming		High Temp. Steaming
4	5	3-4	4	3-4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4.0-6.0	M	●	○	●	●	D	200-210°C
4	5	3-4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	3.0-6.0	M	●	○	●	●	D	200-210°C
4	4	3-4	4	3-4	3-4	3	3-4	3-4	4	4	4	4.0-6.0	G	●	○	●	●	-	200-210°C
4	5	2-3	4	4-5	4-5	4-5	4-5	4-5	4	3-4	4	3.0-8.0	G	○	●	○	○	-	180-190°C
4	4	3-4	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	3.0-8.0	G	○	●	○	○	-	180-190°C
4	4	3	4	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	3.0-8.0	G	○	●	○	○	-	180-190°C
4	4	3-4	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	3.0-8.0	G	○	●	○	○	-	180-190°C



AATCC 16 Option 3 - 20 AFU	Light Fastness	ISO 105 B02	Sublimation ISO 105 P01		Wash ISO 105 C10-C 60°C	Water ISO 105 E01	Perspiration ISO 105 E04		Crocking ISO 105 X12	pH Range in Dyeing	Leveling at 130°C	Suitability Dyeing		Dischargeability
			180°C /30S (PES)	CO			Acidic PES	Alkaline PES				Yarn / Fibre	Carrier Dyeing 100°C	
4.5	5-6	2-3	4-5 3-4 4-5	4-5 4 4-5	PES PA CO	PES PA CO	PES PA CO	PES PA CO	Dry WET	3.0-8.0	G	⊙	●	ND
5	6	3-4	3-4 3 4	4-5 4 4-5			4-5 4 4-5	4-5 4 4-5	4 4	3.0-8.0	G	●	●	ND
4	5-6	3	4-5 4 4-5	4-5 4 4-5			4-5 4 4-5	4-5 4 4-5	4-5 4-5	3.0-8.0	G	⊙	●	D
4	5-6	3	4-5 4-5 4-5	4-5 4-5 4-5			4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5	3.0-8.0	G	⊙	●	D
4	6	2-3	4 3-4 4-5	4-5 4 4-5			4-5 4-5 4-5	4-5 4-5 4-5	4 4-5	4.0-5.0	M	⊙	●	ND
5	6	3	4-5 3-4 4-5	4-5 4 4-5			4-5 4 4-5	4-5 4 4-5	4-5 4-5	3.0-8.0	G	⊙	●	ND
3	-	2-3	3-4 2-3 4-5	4-5 4 4-5			4-5 4 4-5	4 4 4-5	4 4	3.0-8.0	M	⊙	○	D



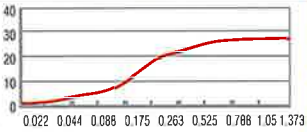
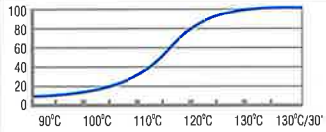


Coralene MD  
Medium Energy Dyes

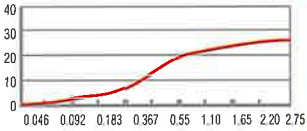
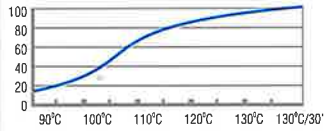
1/1 SD  
Dyeing  
on  
Polyester  
Knit

Rate of Dyeing Curve  
(% Strength vs Temp.)

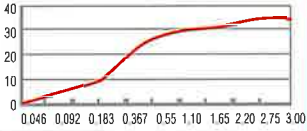
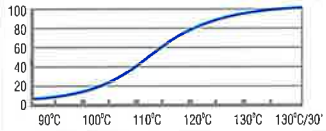
Saturation Curve  
(K/S vs Conc.)



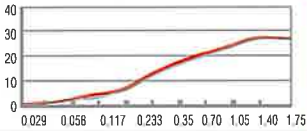
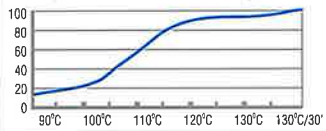
0.525% T-032710118 Yellow MD



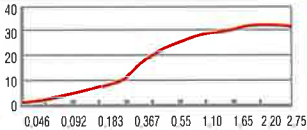
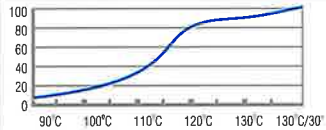
0.90% T033340129 Yellow Brown MD



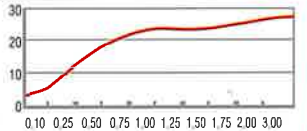
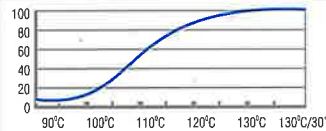
0.83% T034610118 Scarlet MD



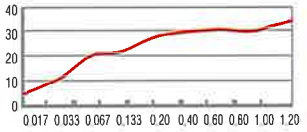
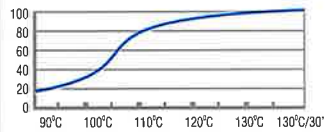
0.70% T-034950116 Cherry MD



0.66% T034480118 Red MD



0.60% T034440116 Rubine MD



AATCC 16 Option 3 - 20 AFU	Light Fastness	ISO 105 B02	Sublimation ISO 105 P01		Wash ISO 105 C10C 60°C	Water ISO 105 E01	Perspiration ISO 105 E04		Crocking ISO 105 X12	pH Range in Dyeing	Levelling at 130°C	Suitability Dyeing		Thermosol Temp. Range	
			180°C / 30S (PES)	PES CO			Acidic PES CO	Alkaline PES CO				Yarn / Fibre	Carrier Dyeing 100°C		Dischargeability
4.5	4	3	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4	4.0-6.0	M	●	●	G	200-210°C
4.5	4	3-4	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5		4.0-8.0	G	●	●	G	200-210°C
4.5	4	4	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5		4.0-8.0	G	●	●	G	200-210°C
4.5	4	4	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5		4.0-8.0	M	●	●	G	200-210°C
4.5	4	4	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5		4.0-8.0	G	●	●	M	200-210°C
4.5	4	3-4	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5		4.0-8.0	G	●	●	G	200-210°C
4.5	4	4	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5 4-5		4.0-8.0	G	●	●	G	200-210°C

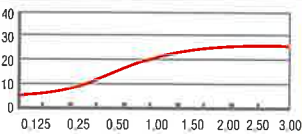
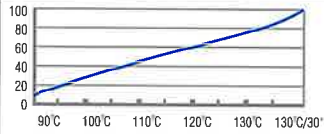


Coralene XF  
High Wash Fast Dyes

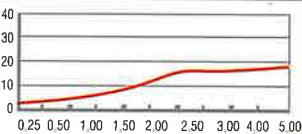
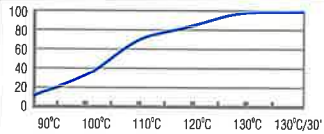
1/1 SD  
Dyeing  
on  
Polyester  
Knit

Rate of Dyeing Curve  
(% Strength vs Temp.)

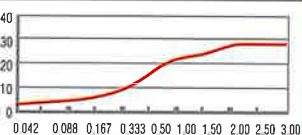
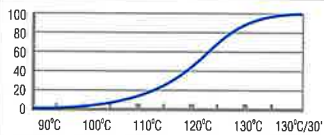
Saturation Curve  
(K/S vs Conc.)



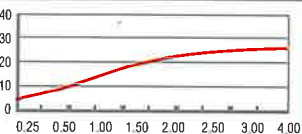
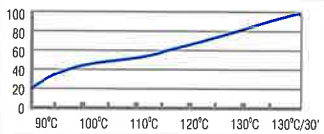
0.50% T-032940119 Yellow XF



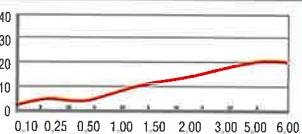
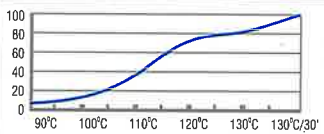
1.20% T-038650117 Yellow Brown XF



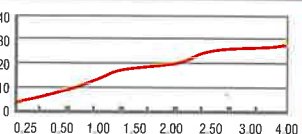
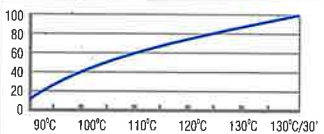
1.00% T-034730117 Scarlet XF



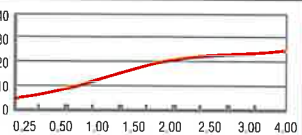
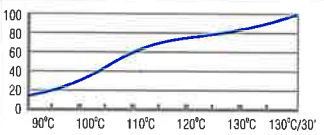
0.75% T-034700117 Red XF



1.80% T-034530116 Brill. Red XFBN



0.75% T-034450116 Rubine XF



Fastness Properties  
(Tested on 1/1 SD after heat setting at 180°C / 30 Sec.)

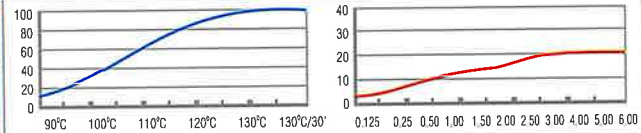
AATCC 16 Option 3 - 20 AFU	Light Fastness	Dry Heat 30Sec. 180°C/30S (PES)	Wash (AATCC 61-2A) PES PA CO WO	Wash (ISO 105 C10:C-60°C) PES PA CO WO	Water (ISO 105 E01) PES PA CO WO	Perspiration Alkaline (ISO 105 E04) PES PA CO WO	Rubbing (ISO 105 X12) Dry Wet	pH Range in Dyeing	Levelling at 130°C.	Thermosol Temp. Range	Suitability for Printing
4.5	6	4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5	4.0	G	200-210°C	●
4.5	6	4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5	4.0	M	190-210°C	●
4	5-6	4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	3-4 3-4	4.0	M	200-210°C	●
4	5	4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 3-4	4.0	G	200-210°C	●
4	5-6	4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5	4.0	M	200-210°C	●
4	4	4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4	4-5 4	4.0	G	210°C	●
4.5	6	4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5	4.0	M	200-210°C	●

1/1 SD  
Dyeing  
on  
Polyester  
Knit

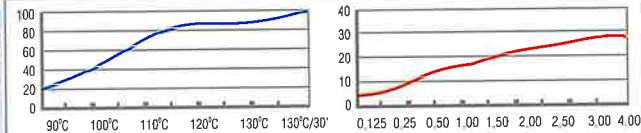
Coralene XF  
High Wash Fast Dyes

Rate of Dyeing Curve  
(% Strength vs Temp.)

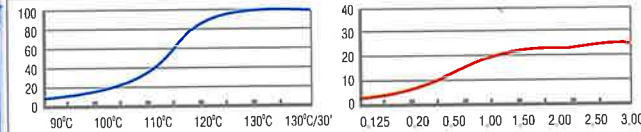
Saturation Curve  
(K/S vs Conc.)



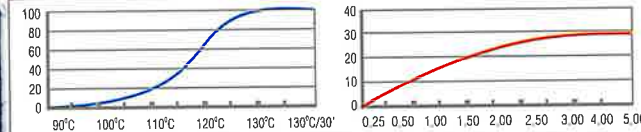
1.50% T-036690116 Brill. Blue GRXF



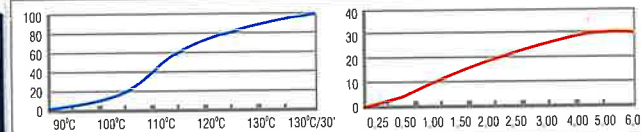
1.00% T-036180117 Blue XF\*



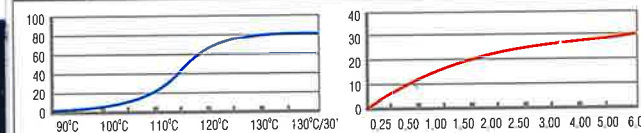
0.64% T-036750130 Dark Blue XF 150%



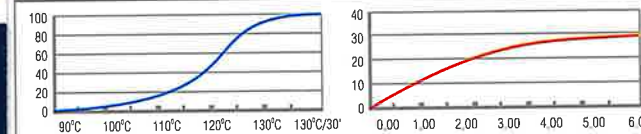
1.90% (2/1 SD) T-036192120 Navy XF-S#



2.10% (2/1 SD) T-036190117 Navy XF\*



2.10% T-036202120 Navy XF-DS#



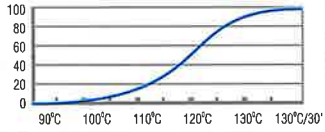
Fastness Properties  
(Tested on 1/1 SD after heat setting at 180°C / 30 Sec.)

AAATCC 16 Option 3 - 20 AFU	Light Fastness ISO 105 B02	Dry Heat 30Sec. Staining on Polyester 180°C/30S (PES)	Wash (AAATCC 61-2A) PES PA CO WO	Wash (ISO 105 C10-C-60°C) PES PA CO WO	Water (ISO 105 E01) PES PA CO WO	Perspiration Alkaline (ISO 105 ED4) PES PA CO WO	Rubbing (ISO 105 X12) Wet	pH Range in Dyeing	Leveling at 130°C.	Thermosol Temp. Range	Suitability for Printing
4	4	4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5	4.0	G	200-210°C	●
4	5-6	4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5	4.0	G	200-210°C	●
4	6	4	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5	4.0	G	200-210°C	●
3.5	3-4	4-5	4.0 3.5 4.5 4.0	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5	4.0	M	200-210°C	●
4.5 1/1 SD	5-6 1/1 SD	4-5 1/1 SD	4.0 4.5 4.5 4.5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5	4.0	M	200-210°C	●
3.5	3-4	4-5	4 3.5 4 4-5	4-5 4-5 4-5 4-5	4-5 4 4-5 4-5	4-5 4 4-5 4	4-5	4.0	M	210°C	●
4 @5.00%	4-5 @5.00%	4-5	4 3 4 4	4-5 4 4-5 4-5	4 3-4 4 4-5	4 3-4 4 4-5	4-5	4.0	M	200-210°C	●

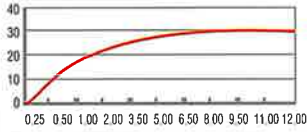


Coralene XF  
High Wash Fast Dyes

Rate of Dyeing Curve  
(% Strength vs Temp.)



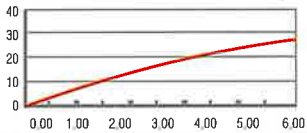
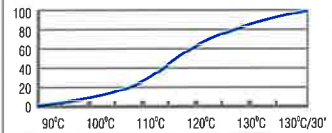
Saturation Curve  
(K/S vs Conc.)



1/1 SD  
Dyeing  
on  
Polyester  
Knit

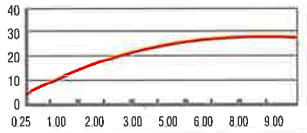
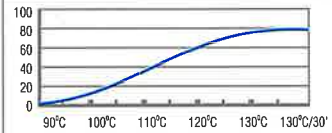
4.20% (As Black)

T-039482120 Black XF-S



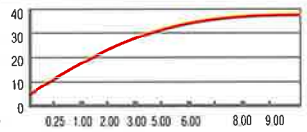
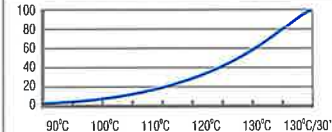
4.50% (As Black)

T-039480116 Black XF\*



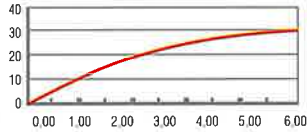
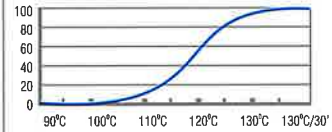
4.50% (As Black)

T-039362120 Black XF-DS#



4.50% (As Black)

T-039361123 Black XF-NS Gran#



3.40% (As Black)

T-039362130 Black XF-CT#

Fastness Properties  
(Tested on 1/1 SD after heat setting at 180°C / 30 Sec.)

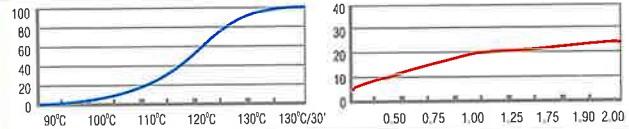
AATCC 16 Option 3 - 20 AFU	Light Fastness	ISO 105 B02	Dry Heat 30Sec. 180°C/30S Staining on Polyester (PES)	Wash (AATCC 61-2A) PES PA CO WO	Wash (ISO 105 C10-C-60°C) PES PA CO WO	Water (ISO 105 E01) PES PA CO WO	Perspiration Alkaline (ISO 105 E04) PES PA CO WO	Rubbing (ISO 105 X12) Dry Wet	pH Range in Dyeing	Levelling at 130°C	Thermosol Temp. Range	Suitability for Printing
4-5	4	4-5	4-5	4.0 3.5 4.5 4.0	4-5 4 4-5 4-5	4-5 4 4-5 4-5	4-5 4 4-5 4-5	4-5 4-5	4.0	M	200-210°C	●
4.5	5-6	4	4	4.5 4.0 4.5 4.5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4-5 4-5 4-5 4-5	4 3-4	4.0	M	200-210°C	●
3.0	4-5	4	4	4 3.5 3.5 4-5	4-5 4 4-5 4-5	4 3-4 4 4-5	4 3-4 4 4-5	4-5 4-5	4.0	M	210°C	●
3.5	4-5	4-5	4-5	4 3-4 4-5 4.0	4 4 4-5 4-5	4 3.5 4 4	4 3.5 5 4	4-5 4	4.0	G	200-210°C	●
4.0	5-6	4	4	4 3 3-5 4	4-5 4 3-4 4-5	4 3 4 4	4 3-4 4 4	4-5 4-5	4.0	M	200-210°C	●

1/1 SD  
Dyeing  
on  
Polyester  
Knit

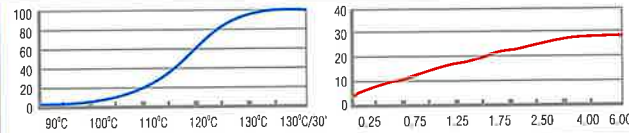
Coralene HP  
High Wash Fast Dyes

Rate of Dyeing Curve  
(% Strength vs Temp.)

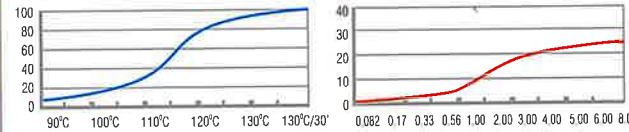
Saturation Curve  
(K/S vs Conc.)



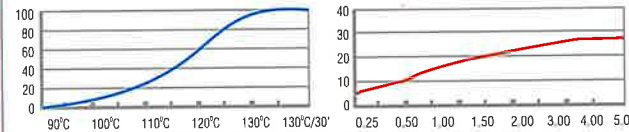
0.95% T-032620140 Yellow HP-GS



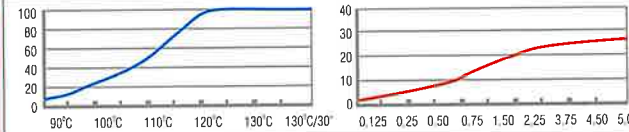
1.37% T-032920120 Golden Yellow HP-3R



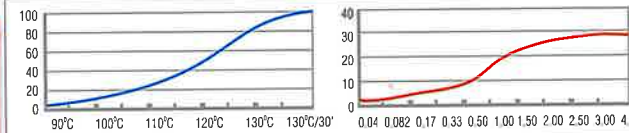
2.00% T-33410120 Yellow Brown HP-2R



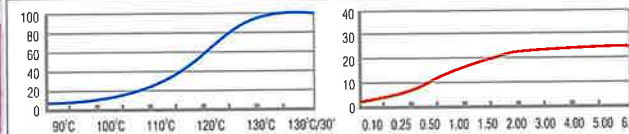
1.65% T-034747120 Scarlet HP-R



1.50% T-034991123 Brill. Red HP-BFS Gran



1.10% T-034990120 Brill. Red HP-3BS



Fastness Properties  
(Tested on 1/1 SD after heat setting at 180°C / 30 Sec.)

General Properties

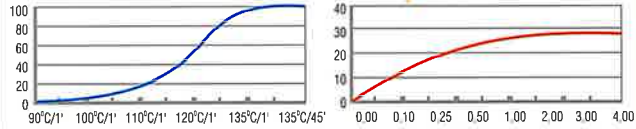
AAATCC 16 Option 3 - 20 AFU	Light Fastness ISO 105 B02	Fastness Properties										General Properties				
		Sublimation Fastness (ISO 105 P01) 180°C/30S	Wash (ISO 105 C06, C2S)	Wash (AATCC 61 2A, 49°C)	Perborate Washing M & S C4A (60°C)	Wash Adidas 5.01 (60°C)	Perspiration Fastness Alkaline (ISO 109 E04)	Water (ISO 105 E01)	Dry cleaning Fastness (ISO 105 D01)	Rubbing Fastness (ISO 105 X12)	Critical Temperature Zone	Leveling at 135°C	Migration	Suitability for printing	Dischargeability (Zinc Sulfoxylate Formaldehyde)	Thermosol Temp. Range
4.5	6	4-5 4-5	4 3-4 4 4-5	4.0 4.0 4.0 4.5	4-5 4 4-5 4-5	4 3-4 4 4-5	4-5 4 4-5 4-5	4 4-5 4-5 4-5	4-5 4-5 4-5 4-5	110-135°C	M	M	●	G	200-210°C	
4.5	6+	4-5 4-5 4	4 4-5 4-5 4-5	4.0 4.5 4.5 4.5	4-5 4-5 4-5 4-5	4 4 4 4-5	4-5 4-5 4-5 4-5	4 4-5 4-5 4-5	4-5 4-5 4-5 4-5	110-135°C	M	M	●	G	200-210°C	
4.5	6	4-5 4-5	4 4-5 4-5 4-5	4.0 4.0 4.5 4.5	4-5 4-5 4-5 4-5	4 4 4 4-5	4-5 4-5 4-5 4-5	4 4-5 4-5 4-5	4-5 4-5 4-5 3-4	110-135°C	M	M	●	G	200-210°C	
3-5	3-4	4-5 4-5	4 4-5 4-5 4-5	4.0 4.5 4.5 4.5	4 4-5 4-5 4-5	4 4 4 4-5	4-5 4-5 4-5 4-5	4 4-5 4-5 4-5	4-5 4-5 4-5 4	110-135°C	M	M	●	M	200-210°C	
4	4-5	4-5 4-5 4-5	4 4-5 4-5 4-5	4.0 4.5 4.5 4.5	4 4-5 4-5 4-5	4 4 4 4-5	4-5 4-5 4-5 4-5	4 4-5 4-5 4-5	4-5 4-5 4-5 4	100-125°C	M	M	●	L	200-210°C	
4.5	6	4-5 4-5 4-5	4 4-5 4-5 4-5	4.0 4.5 4.5 4.5	4-5 4-5 4-5 4-5	4 4-5 3-4 4-5	4-5 4-5 4-5 4-5	4 4-5 4-5 4-5	4-5 4-5 4-5 4	110-135°C	M	M	●	G	200-210°C	
2.5	3	4-5 4-5	4 4 4 4-5	4.0 4.0 4.0 4.5	4 4-5 4 4-5	4 4 4 4-5	4-5 4-5 4-5 4-5	4 4-5 4-5 4-5	4-5 4-5 4-5 4-5	110-135°C	M	M	●	G	200-210°C	

# Coralene HP High Wash Fast Dyes

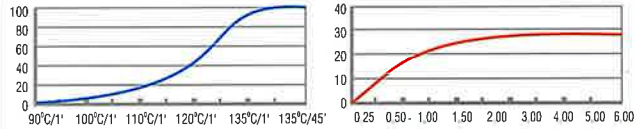
1/1 SD  
Dyeing  
on  
Polyester  
Knit

Rate of Dyeing Curve  
(% Strength vs Temp.)

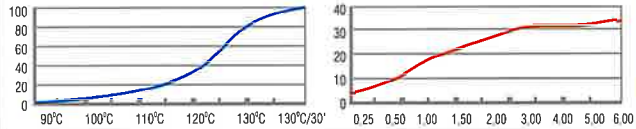
Saturation Curve  
(K/S vs Conc.)



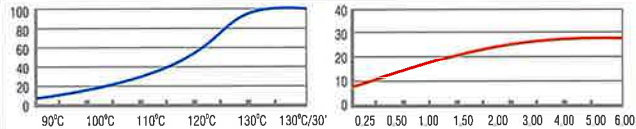
1.00% T-035991120 Violet HP-2RS



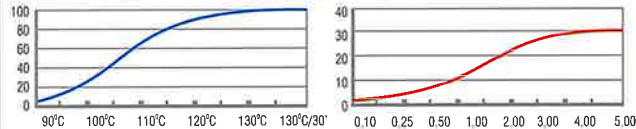
1.50% T-035351120 Violet HP-4RS



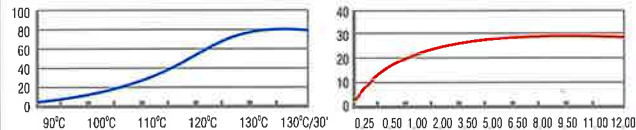
1.50% T-036771120 Royal Blue HP-EL



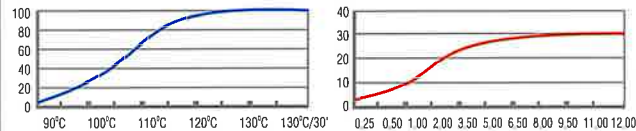
3.50% T-036793120 Blue HP-GS



3.15% (2/1 SD) T-036200120 Navy Blue HP-R#



2.10% (2/1 SD) T-036201120 Navy HP-B#

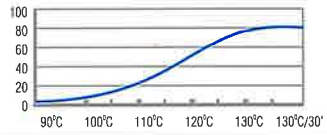


Fastness Properties (Tested on 1/1 SD after heat setting at 180°C / 30 Sec.)											General Properties						
AATCC 16 Option 3 - 20 AFU ISO 105 B02	Light Fastness	Fastness Properties										Critical Temperature Zone	Leveling at 135°C	Migration	Suitability for printing	Dischargeability (Zinc Sulfoxylate Formaldehyde)	Thermosol Temp. Range
		Sublimation Fastness (ISO 105 P01) 180°C/30S	Wash (ISO 105 C06, CZS)	Wash (AATCC 61 2A, 49°C)	Perborate Washing M & S C4A (60°C)	Wash Addidas 5.01 (60°C)	Perpiration Fastness Alkaline (ISO 105 E04)	Water (ISO 105 E01)	Dry cleaning Fastness (ISO 105 D01)	Rubbing Fastness (ISO 105 X12)	WET						
4	5-6	4-5	4	4	4	4	4-5	4-5	4	4-5	4-5	110-135°C	M	M	●	G	200-210°C
3.5	3-4	4-5	4	4.0	4	4	4-5	4-5	4	4-5	4-5	110-135°C	M	M	●	G	200-210°C
3.5	3-4	4-5	4	4.0	4	4	4-5	4-5	4	4-5	4-5	115-135°C	M	M	●	M	200-210°C
4.5	4-5	4-5	4	4.0	4-5	3-4	4	4-5	4	4-5	4-5	110-135°C	M	M	●	G	200-210°C
4.5	6	4-5	4	4.0	4-5	4	4-5	4	4	4-5	4-5	110-135°C	M	M	●	G	200-210°C
3.5	5	4-5	4	4	4	4	4-5	4-5	4	4-5	4-5	110-135°C	M	M	●	M	200-210°C
4.5	6	4-5	4	4.0	4-5	4	4-5	4-5	4	4-5	4-5	110-135°C	M	M	●	M	200-210°C

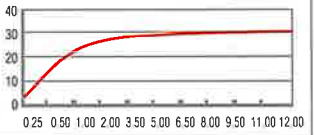
1/1 SD  
Dyeing  
on  
Polyester  
Knit

Coralene HP  
High Wash Fast Dyes

Rate of Dyeing Curve  
(% Strength vs Temp.)



Saturation Curve  
(K/S vs Conc.)



4.50% (2/1 SD)

T-039400120 **Black HP-R#**

Fastness Properties  
(Tested on 1/1 SD after heat setting at 180°C / 30 Sec.)

General Properties

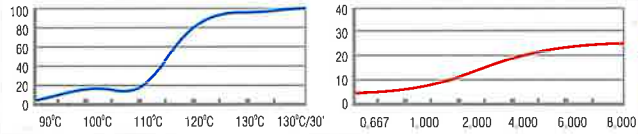
AATCC 16 Option 3 - 20 AFU	Light Fastness	Fastness Properties										General Properties				
		Sublimation Fastness (ISO 105 P01) 180°C/30S	Wash (ISO 105 C06, C2S)	Wash (AATCC 61 2A, 49°C)	Perborate Washing (M & S C4A (60°C))	Wash Aldidas 5.01 (60°C)	Perspiration Fastness Alkaline (ISO 105 E04)	Water (ISO 105 E01)	Dry cleaning Fastness (ISO 105 D01)	Rubbing Fastness (ISO 105 X12)	Critical Temperature Zone	Leveling at 135°C	Migration	Suitability for printing	Dischargeability (Zinc Sulfoxylate Formaldehyde)	Thermosol Temp. Range
4.5	5-6	4-5	4 3-4 4-5	4 4 4-5	4 4 4-5	4 3-4 4	4-5 3-4 3-4 4	4-5 3-4 4-5 4-5	4-5	110-135°C	M	M	●	G	200-210°C	

Coralene AT  
High Light Fast Dyes

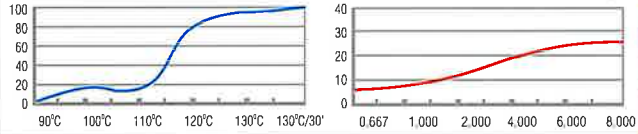
1/1 SD  
Dyeing  
on  
Polyester  
Knit

Rate of Dyeing Curve  
(% Strength vs Temp.)

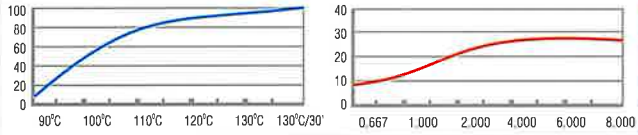
Saturation Curve  
(K/S vs Conc.)



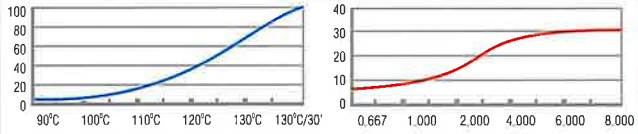
2.00% T-032390116 Yellow AT-GL (Disp. Yellow 42)



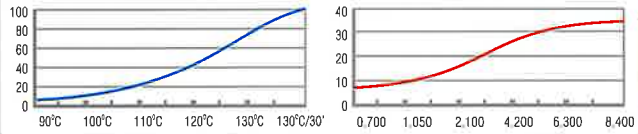
2.00% T-032030116 Yellow AT-2R (Disp. Yellow 86)



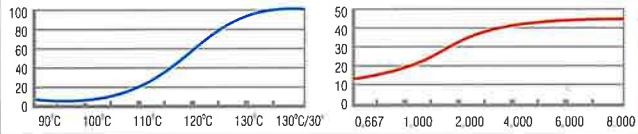
2.00% T-032242120 Yellow Brown AT-BR (Disp. Yellow 163)



2.00% T-034850116 Pink AT-GL (Disp. Red 86)



1.40% T-036360136 Blue AT-GS 150% (Disp. Blue 77)



2.00% T-036800117 Blue AT-GL (Disp. Blue 73)



Light Fastness		Fastness Properties						pH Range in Dyeing	Levelling at 130°C in Exhaust dyeing	Dischargeability
AATCC 16 Option 3 - 20 AFU	AATCC 16, Option 3, 60 AFU	ISO 105 B02 (Up to Grade 8)	Sublimation ISO 105 P01 180°C/30 Sec. 1/1SD	Wash* ISO 105 C10-C, 1/1SD	Perspiration*		Rubbing*			
					ISO 105 E04, (Acidic) 1/1SD	ISO 105 E04, (Alkaline) 1/1SD	ISO 105 X12, 1/1SD			
1/12 SD 1/1 SD	1/12 SD 1/1 SD	1/12 SD 1/1 SD	PES PES PA CO	PES PA CO	PES PA CO WO	PES PA CO WO	Dry Wet			
4,5 4,5	4,5 4,5	6-7 6-7	4	4-5 4-5	4-5 4-5	4-5 4-5	4-5	3.0-9.0	M	ND
4,5 4,5	4,5 4,5	6-7 6-7	4	4-5 4-5	4-5 4-5	4-5 4-5	4-5	3.0-9.0	G	D
4,5 4,5	4,5 4,5	5-6 5-6	4-5	4-5 4-5	4-5 4-5	4-5 4-5	4-5	3.0-6.0	G	D
4,5 4,5	4,5 4,5	7 7	4	3 2-3 4-5	4-5 4 4-5	4-5 4 4-5	4-5	3.0-9.0	M	ND
4,5 4,5	4,5 4,5	5-6 6	4-5	4 3 4-5	4-5 4 4-5	4-5 4 4-5	4-5	3.0-9.0	G	ND
4,5 4,5	4,5 4,5	7 7	4	4-5 4-5	4-5 4-5	4-5 4-5	4-5	3.0-9.0	M	ND