

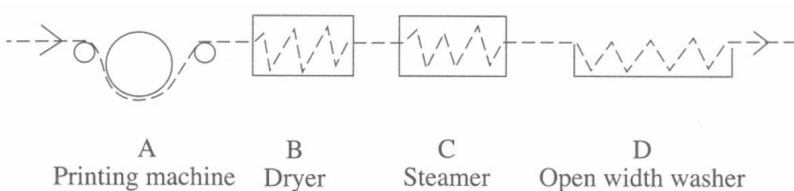
Cfr: Küster

# *Continuous Dyeing*

## 2- Semi-continuous dyeing of cotton with Sumifix and Sumifix Supra dyes

Cold Pad-Batch process					
Apparatus	<p style="text-align: center;">A      B      C      D      E      F Dye tank Alkali tank Padder      Batching      Batching      Open width washer</p>				
Procedure and Conditions	A. Adding dye and auxiliaries	Sumifix or Sumifix Supra and Supra E-XF dyes (Sumifix HF not recommended) Penetrating agent Urea (Usually not required)	X g/l 0-2 ml/l 50 g/l		
	B. Adding alkali	Sodium Silicate (40°Bé)  Caustic Soda (40°Bé)  Possible alternative alkali systems: (1) Soda Ash Caustic Soda (2) Glauber salt Caustic Soda	70-100 g/l  8-30 ml/l  10-20 g/l 5-20 g/l 30 g/l 8-30 g/l		
	C. Padding	Temperature	20-30°C		
	D. Batching	Temperature	20-30°C		
	E. Storage	Temperature, time (min. 6hrs for Sumifix dyes) (12-20 hrs for Sumifix Supra en Supra E-XF dyes)	20-30°C, 6-24 hr.		
	F. Washing	(1) Cold rinsing with overflow	1 Box	Temperature	20-30°C
		(2) Hot rinsing	1 Box	Temperature	50°C
		(3) Hot rinsing	2 Boxes	Temperature	90°C
		(4) Soaping	3 Boxes	Soaping agent Temperature	3 g/l 98°C
	(5) Hot rinsing	1 Box	Temperature	70°C	
	(6) Cold rinsing	1 Box	Temperature	20-30°C	
Remarks	For other continuous applications process, please contact Sumitomo Chemical Europe N.V./S.A.				

### 3- Printing of Cotton with Sumifix, Sumifix Supra and Supra E-XF dyes

One-phase steaming process				
Apparatus	 <p style="text-align: center;"> <span style="margin-right: 100px;">A</span> <span style="margin-right: 100px;">B</span> <span style="margin-right: 100px;">C</span> <span>D</span>            Printing machine    Dryer            Steamer            Open width washer         </p>			
Procedure and Conditions	A. Printing (Printing paste)	Sumifix or Sumifix Supra and Supra E-XF dyes	X g/l	
		Hot water	300 g	
		Urea (Usually not required)	0-50 g	
		Sodium alginate (4% paste)	550 g	
		Reduction inhibitor (Sodium m-nitrobenzene sulfonate)	10-20 g	
		Sequestrant	0-5 g	
		Sodium Bicarbonate	10-20g	
		Balance (Water or thickening)	y g	
		Total	1000 g	
		B. Intermediate drying	Temperature, time	110-130°C, 3-5 min.
	C. Steaming	Temperature, time	100-102°C, 3-7 min.	
	D. Washing	(1) Cold rinsing with overflow	3 Boxes	Temperature 20-30°C
		(2) Warm rinsing	1 Box	Temperature 40°C
		(3) Hot rinsing	1 Box	Temperature 75°C
		(4) Hot rinsing	1 Box	Temperature 85°C
		(5) Soaping	3 Boxes	Temperature 98°C
		Nonionic surfactant		1 g/l
		(6) Hot rinsing	1 Box	Temperature 70°C
		(7) Warm rinsing	1 Box	Temperature 40°C
		(6) Cold rinsing	1 Box	Temperature 20-30°C
Remarks	Alkali should be added to the printing paste after it is thoroughly cooled. Printing paste should be stored in a cool and dark place. After printing and drying, the printing goods should be fixed immediately.			