

Illustration on unmercerized fabric



Characteristics

C. I.	Reactive Blue 21
CAS No.	73049-92-0
Chemical class	Phthalocyanine

Properties

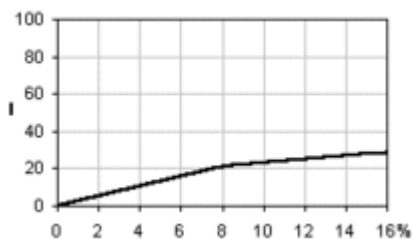
Solubility (g/l at 25°C)	50
HT-dyeing of polyester/cotton fibre blends (<i>two-bath dyeing</i>)	suitable
Pad-Batch dyeing method	suitable
Levelling power	good to very good
Washing-off	good

Fastness

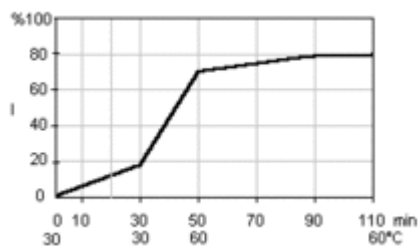
	cotton						viscose					
<i>standard depth</i>	1/25	1/12	1/6	1/3	1/1	2/1	1/25	1/12	1/6	1/3	1/1	2/1
Light Xenotest	3-4Y	3-4Y	4Y	4Y	4Y	4-5Y	4Y	4Y	4Y	4-5Y	5Y	5Y
<i>standard depth</i>	1/1						1/1					
Washing 60°C	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5
Washing E2S 95°C	4	3-4	4-5	4-5	4-5	4-5	4	4	4-5	4-5	4-5	4-5
Washing 95°C	4	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5
Perspiration acid	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5
Perspiration alkaline	4-5	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5
Peroxide bleaching	4-5	3-4	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5	4	4
Rubbing dry		4-5	4-5	4-5	4-5	4-5		4-5	4-5	4-5	4-5	4-5
Swimming pool water	2						2D					
Hot pressing dry immediately	4Y						4Y					
Alkali	3YD						3Y					
Mercerizing	3*	4-5	4-5	4-5	4-5	4-5	3R*	4-5	4-5	4-5	4-5	4-5
Acetic acid	3Y	3-4Y	3-4Y	3-4Y	3-4Y	3-4Y	4	4	4	4	4	4

Exhaustion curves

Saturation curve



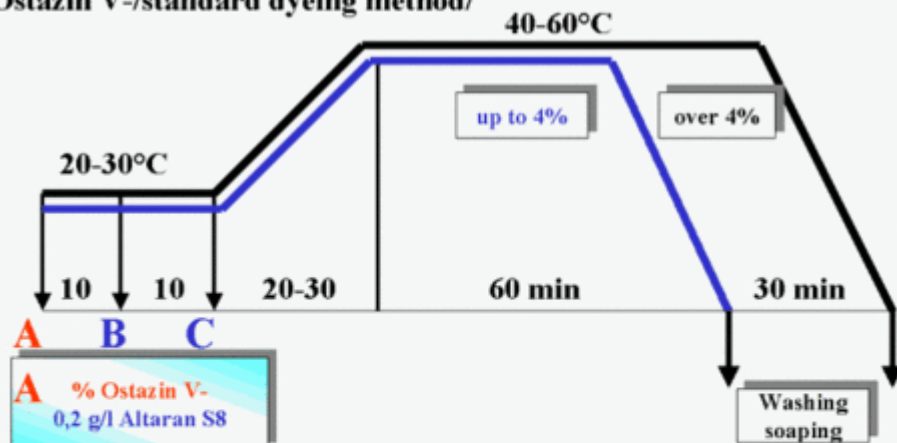
Exhaustion curve



Application possibilities

Ostazin V - Exhaustion dyeing ●

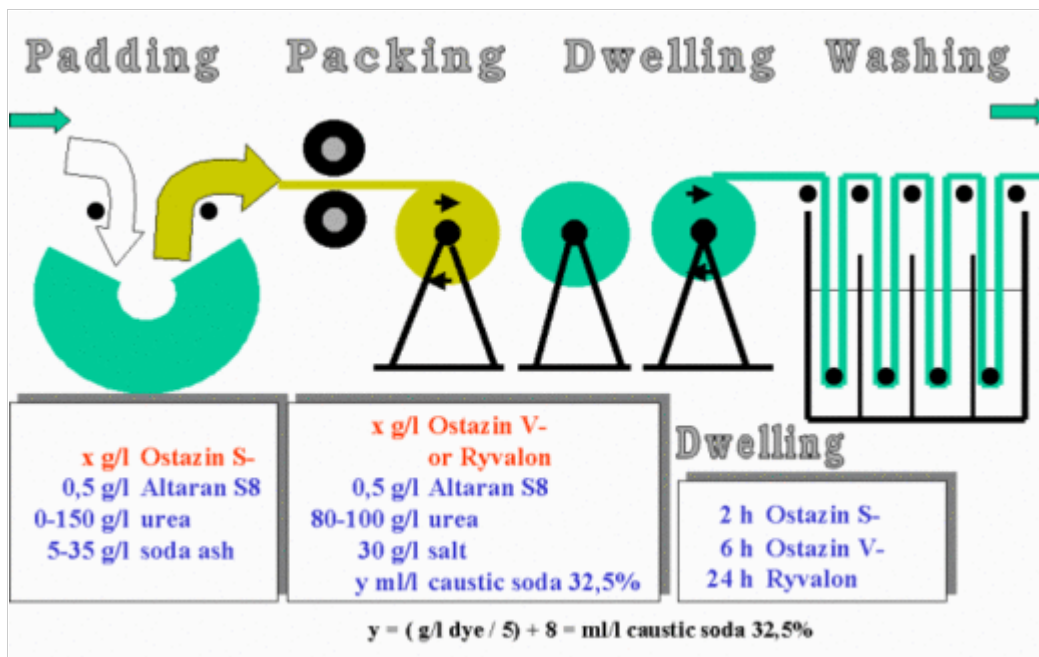
Ostazin V-/standard dyeing method/



Composition of dyeing bath at temperatures 40°C and 60°C

Liquor ratio		1:5 - 1:7	1:8 - 1:14	1:15 - 1:30
B/ salt	g/l	50 50	50 50	50 50
C/ caustic soda 32,5%	ml/l	3-4 0,5-3	2-3 0,1-2	1-2 0,1-1
C/ soda ash	g/l	5 5	5 5	5 5

Ostazin V - Pad Batch



● suitable ◐ partially suitable ○ unsuitable

Testing methods

Solubility

Evaluated according to	ISO 105 ZO9	Ostazin S
	ISO 105 ZO7	Ostazin V a Ryvalon

The number denotes the maximum dye quantity in grams which is dissolved in the given conditions in one litre of distilled water.

Fastness standards

Light Xenotest	ISO 105-B02-1994	
Washing	ISO 105-C04-1989	
Domestic and commercial laundering	ISO 105-C06-1994	test E2S
Perspiration	ISO 105-E04-1994	
Peroxide bleaching	ISO 105-N02-1993	
Rubbing	ISO 105-X12-1993	
Swimming pool water	ISO 105 E03-1994	
Hot pressing	ISO 105 X11-1994	

Alkali	ISO 105 E06-1989
Mercerizing	ISO 105-X04-1994
Acids	ISO 105 E05-1989

The fastness data given in tables denote:

<i>for light fastness</i>	<i>for other fastness data</i>
1 - very poor	1 - poor
2 - poor	2 - moderate
3 - moderate	3 - good
4 - fairly good	4 - very good
5 - good	5 - excellent
6 - very good	
7 - excellent	
8 - unsurpassed	

The numbers at the individual dye fastness data mean:

First number	- change of shade
Second number	- staining of the undyed adjacent fabric made of the same material as the tested SAMPLE
Third number	- staining of the undyed woolen adjacent fabric

For the fastness to washing at 95°C and fastness to peroxide bleaching the figures have the following meaning

For dyeing of cotton

First number	- change of shade
Second number	- staining of the undyed adjacent cotton fabric
Third number	- staining on the undyed adjacent viscose fabric

u vybarvení na viskóze

First number	- change of shade
Second number	- staining on the undyed adjacent viscose fabric
Third number	- staining of the undyed adjacent cotton fabric

For fastness in mercerizing asterixat the figure means effect to deeper shade

Saturation and exhaustion curves

Saturation curves express the dyeing saturation in dependence on the increasing dye concentration in the dyebath. From them it is possible to determine the saturation point of the dyestuff, i.e. the maximum effective dye concentration. On the X axis there are assigned the integrated reflectance I values

$$I = \sum_{400}^{700} K/S (\bar{x} + \bar{y} + \bar{z})$$

Where K/S is the Kubelka-Munk equation

$$\frac{(1-\beta)}{2\beta}$$

β is surface reflectance

$\bar{x}, \bar{y}, \bar{z}$

are the colour matching response functions for the D65 light and 10° standard observer

Exhaustion curves were designated from initial concentration of 1/1 standard depth by standard exhaustion method and show the amount of the dye exhausted from the dyebath in dependenc on the dyeing time.