



## Improtant

The information contained in this document is based upon the present state of our knowledge and upon the results of detailed evaluation work, presented objectively. It is made without liability as to any results obtained by the application of the products described therein.

It is strongly recommended that, before proceeding to industrial scale work, trials should be carried out to assess product performance under the specific conditions that will be encountered.



## Nylanthrene

dyes for polyamide



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**NYLANTHRENE  
DYESTUFFS  
Polyamide**

PA6.6




Concentration %				1.0	1.0	1.0	1.2	1.0	1.1	2.0	
Solubility at 90°C g/l				70	90	30	75	25	20	10	
Artificial Light				R	R	R	R	Y	Y	Y	
Lightfastness Xenotest ISO 105-B02	1/12			5	6	5-6	5-6	6-7	6	5	
	1/3			6	6-7	6	6	6-7	6-7	6-7	
	1/1			6-7	7	7	6-7	7	6-7	7	
Water ISO 105-E01	N	SC		4-5	4-5	5	5	4-5	4-5	4-5	
		PA		3-4	4	3	4	3-4	4-5	4	
	A	SC		5	5	5	5	5	5	5	
		PA		5	5	5	5	5	5	5	
Washing 40°C ISO 105-C06 A2S 1997 see note	N	SC		4-5	4	3-4	4	4	4	4-5	
		PA		5	5	5	5	4-5	4-5	4-5	
	A	SC		5	5	5	5	5	5	5	
		PA		5	5	5	5	5	5	5	
Alkaline Perspiration ISO 105-E04	N	SC		4-5	4-5	5	5	4-5	4	4-5	
		PA		3-4	4	3	4	3-4	4	4	
	A	SC		4-5	5	5	5	5	5	5	
		PA		5	5	5	5	5	5	5	
Sea Water ISO 105-E02	N	SC		5	4-5	5	5	4-5	4-5	4-5	
		PA		3-4	4	3-4	4	3-4	4	4	
	A	SC		5	5	5	5	5	5	5	
		PA		5	5	5	5	5	5	5	
Chlorinated Water (100mg/l act.Cl) ISO 105-E03	N	SC		4D	5	3DG	3Y	2-3	2-3	1-2	
	A	SC		4D	5	3DG	3Y	1-2	2-3	1-2	
	CW	SC		3R	4-5D	4-5	4Y	4	5	3-4	

**Note**

Wash test results for Nylanthrene B dyes are based on dyeings of 1:3 standard depth

Wash test results for Nylanthrene C dyes are based on dyeings of standard depth.

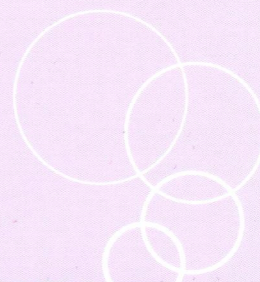


Blue B-2RF 200	Blue B-NL	Blue B-AR 200	Blue B-2GL	Yellow* C-4GL	Yellow C-FLW	Yellow C-3RL		Orange C-SLF	<del>Orange C-ALG</del>	Red C-3BR	<del>Red C-RA</del>	Red C-2B	Red C-2RBL	Red C-B
														
1.5	1.5	1.0	1.5	0.9	2.0	2.0		2.0	2.0	1.0	2.0	1.5	1.35	2.0
40	40	20	50	80	50	90		60	30	30	25	30	100	30
R	D	G	G	R	R	R		R	R	Y	Y	Y	Y	Y
6-7	5-6	6-7	6-7	6-7	6	4-5		4-5	4-5	3	3	5	4-5	3-4
7	5-6	6-7	6-7	7	7	6		5-6	5-6	4	3-4	6	5	3-4
7-8	6	7	7	7	7-8	6		6	6	5	4	6-7	5-6	4
4	4	4	4	5	5	4-5		4-5	5	4	5	5	4-5	5
3	3-4	3-4	3-4	5	4	4		4	4-5	3-4	5	4	4-5	5
4-5	5	5	4-5	5	5	5		5	5	5	5	5	5	5
4-5	5	4-5	5	5	5	5		5	5	5	5	5	5	5
3-4	3	3-4	3-4	5	4	4		4	4	4-5	5	4-5	4-5	5
4	4	4	4-5	5	4-5	5		5	4-5	3-4	4-5	4-5	4	5
4	4-5	4	4-5	5	5	5		5	5	5	5	5	5	5
5	5	5	5	5	5	5		5	5	4-5	5	5	4	5
4	4	4-5	4	5	4-5	4-5		*4-5	5	4	5	5	4-5	5
3	3	3	3-4	4-5	4	4		4	4-5	3-4	4-5	4	4-5	4
4-5	5	5	4-5	5	5	5		5	5	5	5	5	5	5
4-5	5	4	5	5	5	5		5	5	4-5	5	5	5	5
4	4	4	4	5	4-5	4-5		4-5	5	4-5	5	5	4	5
3	3	3-4	3-4	5	4	4		4	4-5	3-4	5	4	4	5
4-5	5	4-5	4-5	5	5	5		5	5	5	5	5	5	5
4-5	5	5	5	5	5	5		5	5	5	5	5	5	5
2-3D	3D	1WD	2-3D	3	4-5Br	4Br		4	2	4-5	4	3	2W	4-5
2-3D	3D	2WD	2-3D	3	4-5	4-5Br		4	2	4-5	4	4	2-3W	5
4	4	4D	4Y	3-4	4-5	4Br		4	3	4Br	4-5	5	5	5



Bordeaux  
C-BRubine  
C-SBL 200Violet  
C-BBlue  
C-GLF 200Navy  
C-RNBlack  
C-RFBlack  
C-WLX

# NYLANTHRENE DYESTUFFS Polyamide



	2.0	1.0	1.5	1.5	2.0	3.0	4.0		Concentration %		
	35	40	50	70	100	80	80		Solubility at 90°C g/l		
	Y	Y	DR	DR	D	G	R		Artificial Light		
	5	4-5	5	5	-	-	-		1/12	Lightfastness Xenotest ISO 105-B02	
	6	5	5-6	5-6	-	-	-		1/3		
	6-7	6	6	6	5-6	6	6-7		1/1		
	4-5	4-5	5	4-5	4-5	4	5		SC	N	Water ISO 105-E01
	4	4-5	5	4-5	4-5	3-4	4-5		PS		
	5	5	5	5	5	4-5	5		SC	A	
	5	5	5	5	5	4-5	5		PA		
	4	4	5	4	4-5	4	5		SC	N	Washing 40°C ISO 105-C06 A2S 1997 see note
	5	5	5	3-4	2-3	3	3		PA		
	5	5	5	5	4-5	4	5		SC	A	
	5	5	5	4	4	4-5	5		PA		
	4-5	4-5	5	4-5	4-5	4	5		SC	* N	Alkaline Perspiration ISO 105-E04
	4	4	4-5	4-5	2	3	4		PA		
	5	5	5	5	4-5	4	5		SC	A	
	5	5	5	5	4-5	4	5		PA		
	4-5	4-5	5	4-5	4-5	4	4-5		SC	N	Sea Water ISO 105-E02
	4	4	5	4-5	4	4	4-5		PA		
	5	5	5	5	5	5	5		SC	A	
	5	5	5	5	5	4-5	5		PA		
	1	1	2-3	2G	3R	2-3R	3R		SC	N	Chlorinated Water (100mg/l act.Cl) ISO 105-E03
	1	1	3-4	2G	3R	2-3R	3R		SC	A	
	3R	3R	4-5	3-4G	4R	4-5	5		SC	CW	

\* May be catalytically faded by  
anthraquinonedyes(eg blues  
and greens) under certain conditions  
- see JDC 108,1992,269

## abbreviations

N untreated  
A aftertreated  
(with 2% Dyapol SB40)  
SC shade change  
PA stain on polyamide  
CW aftertreated  
(with 5% Intratex CW)  
B blue  
Br brighter  
D duller  
G greener  
R redder  
Y yellow  
W weaker



## Recommended trichromats for apparel

For pale shades:

Nylanthrene Yellow B-5R 150	Nylanthrene Yellow C-3RL
Nylanthrene Red B-NG 200	Nylanthrene Red C-2RBL
Nylanthrene Blue B-2RF 200	Nylanthrene Navy C-RN

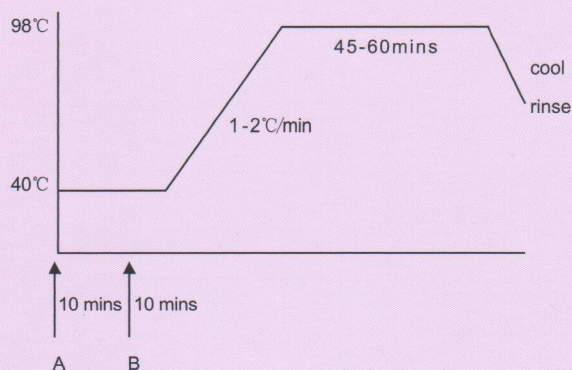
**For maximum economy—medium/dull tertiary shades:**

Nylanthrene Orange C-SLF  
Nylanthrene Rubine C-5BL 200  
Nylanthrene Navy C-RN

## Recommended trichromat for carpets

Nylanthrene Yellow B-5R 150  
Nylanthrene Red B-2BSA 200  
Nylanthrene Blue B-AR 200

## Dyeing profile for nylanthrene b & c dyestuffs



A Intratex AL  
Ammonium Sulphate  
Acetic Acid

B Nylanthrene Dyes

## Trichromats for swimwear

**For pale to medium shades:**

Use Nylanthrene B trichromat for

- excellent levelling
- excellent compatibility
- excellent migration properties

Recommended trichromat

Nylanthrene Yellow B-5R 150  
Nylanthrene Red B-NG 200  
Nylanthrene Blue B-2RF 200

**For medium to dark shades:**

Use Nylanthrene C trichromat for higher wet fastness

Recommended trichromat

Nylanthrene Yellow C-3RL  
Nylanthrene Red C-2RBL  
Nylanthrene Blue C-GLF 200

## Improvement in chlorine fastness

Fastness to chlorinated water can be significantly improved by aftertreating with Intratex **CW**

Method:

Set bath at 40°C with 4% **Intratex CW**  
Adjust to pH 4.0-4.5 with acetic acid  
Raise to 70°C at 2-3°C/minute  
Run for 20 minutes  
Cool and rinse



## General exhaust dyeing method

### Preparation

- Alkaline scour  
1ml/l **Dyamul SLX New**  
2g/l sodium carbonate  
60°C for 20 minutes

### General Dyeing Method

	Shade	Intratex AL	Ammonium Sulphate
Nylanthrene B	light	2.0 - 1.0%	1.0 - 2.0g/l
	medium	1.0 - 0.5%	
Nylanthrene C	medium	2.0 - 1.0%	1.0 - 2.0g/l
	dark	1.0 - 0.5%	

- Start bath at 40°C with **Intratex AL**, ammonium sulphate - pH 5-6 with Acetic Acid.
- Add the dissolved dyestuffs.
- Run for 15 minutes and check the pH.
- Raise to 98°C over 30-40 minutes and dye for 30-60 minutes at that temperature.
- If necessary complete exhaustion by adding further acetic acid.

### Aftertreatment

- In a fresh bath with:-  
2% **Dyapol SB-40** at pH 4.5 with acetic acid at 60 - 70°C for 20 minutes.

### Auxiliaries

**DYAMUL SLX New** is an **APEO** free low foaming multi-purpose detergent designed to give an excellent combination of wetting and detergency across a wide range of application conditions.

**Intratex AL** is a cationic levelling agent with anti-barré properties and is recommended for producing level dyeings with minimum barréness.

**Dyapol SB-40** is a powerful syntanning agent recommended for improving the wet fastness of acid and metal complex dyes.

## Nylanthrene dyes

Nylanthrene dyes are ideally suited to the dyeing of polyamide 6 or 6.6.

They can be used in neutral, or even alkaline dye baths, in order to ensure outstanding levelness.

Their very good migration properties assure an excellent coverage of barréness.

They have high light and wet fastnesses.

### Nylanthrene B dyes give:

- the best level dyeing
- the best coverage
- the best migration

### Nylanthrene C dyes give:

- the highest levels of wet fastness