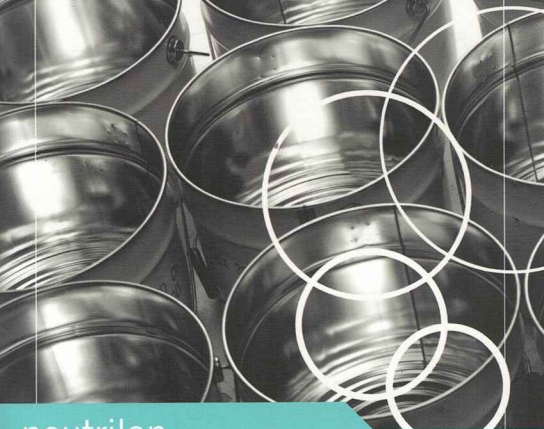




neutrilan

dyes for polyamide


ycl yorkshire
COLOURS LIMITED

yorkshire
GROUP

neutrlan A dyes

neutrlan K dyes

Yellow
A-3R
0.7%

Red
A-RB
0.7%

Red
A-2B
0.55%

Brown
A-2G
1.5%

Grey
A-5B
0.6%

Black
A-RB
3.5%

Yellow
K-GR
0.5%

Yellow
K-NW
1.0%

Yellow
K-3R
0.75%

Orange
K-RL
1.0%

Red
K-2G
1.0%

Bordeaux
K-RL
0.5%



PA 6.6													
Minimum Solubility g/l	25°C	D I S P E R S E T A B L E					P E						
	90°C												
Light Fastness Xenotest	1/12	5-6	5	5	5	5-6	6-7	5-6	6	6-7	6-7	7	6-7
	1/3	6	5-6	5-6	5-6	6	7	6	6-7	6-7	6-7	7	7
	1/1	7	6	6	6	6-7	7	6	7	7	6-7	7-8	7-8
	2/1	7	6	6	6	6-7	7	7	7-8	7-8	7	7-8	7-8
Water	E	5	4	5	4-5	5	5	5	5	5	5	5	5
	Wo	5	5	5	5	5	5	5	5	5	5	5	5
	N	5	5	5	5	5	4-5	5	5	5	5	5	5
Washing 40°C	E	5	5	5	5	4-5	5	5	5	5	5	5	4-5
	Wo	5	5	5	5	4-5	4-5	5	5	5	5	5	5
	N	4-5	4-5	4-5	4-5	4-5	2-3	4-5	5	5	5	4-5	5
Washing 60°C	-	U	A	U	A	U	A	U	A	U	A	U	A
	E	5	5	5	5	5	5	4-5	5	5	5	4-5	5
	N	3-4	5	3-4	5	3-4	5	3-4	5	2	5	4-5	5
	C	5	5	5	5	5	5	5	5	5	5	4-5	5
	E	5	5	4-5	5	5	4	5	5	5	5	5	4-5
Alkaline Perspiration	Wo	5	5	5	5	5	5	5	5	5	5	5	5
	N	5	5	5	5	5	5	5	5	4-5	5	5	5
	C	5	5	5	5	5	5	5	5	5	5	5	5
Chlorinated Water	-	M	S	M	S	M	S	M	S	M	S	M	S
	E	4R	2-3	5	3-4	5	3-4	4-5	3-4	5	3	5	4-5
	E	5	5	5	5	5	5	5	5	5	5	5	5
Carpet Shampoo	N	4-5	4-5	4-5	4-5	4-5	4-5	4-5	5	4-5	5	4-5	5
	D	5	5	5	5	5	5	5	5	5	5	5	5
Rubbing	W	5	5	5	5	5	5	5	4-5	5	4-5	5	5
	Cu	4GD	5	4-5D	4GD	4-5D	5	3-4D	4	3-4D	5	4-5	4-5
Effect of metals	Fe	4	5	4-5D	4-5	4-5D	5	4	3DR	3-4D	4-5	4-5Y	4-5Y
Artificial Light	E	R	Y	Y	R	Y	Y	R	R	R	Br	Y	Y
Dischargeability	-	3-4	2	2	2-3	2-3	1-2	5	3	3	4	2-3	2-3

ABBREVIATIONS
E effect on shade
Wo stain on shade
N stain on polyamide
C stain on cotton

A aftertreated (with 2% Dyapol SB40)
B bluer
Br brighter
D duller

G greener
R redder
U untreated
Y yellower
W weaker

CHLORINATED WATER
M mild
S severe

RUBBING
D dry
W wet

EFFECT OF METAL
Cu copper
Fe iron

								neutrilan S							
Grey K-BL 0.8%	Black K-BL 4.0%	Yellow S-R 1.5%	Yellow S-GL 2.0%	Yellow S-2G 1.0%	Orange S-R Grains 0.75%	Red S-GN Grains 0.75%		Red S-BB 0.5%	Red S-RL 0.75%	Rubine S-2R 0.5%	Bordeaux S-BR 0.5%	Brown S-2R Grains 2.1%	Brown S-3R 1.5%	Brown S-DP 1.50%	
15	15	25	80	30	45	20		60	60	50	40	60	30	20	
25	30	40	80	60	60	30		60	80	50	50	80	60	40	
6	6	5-6	6	6-7	6	6		4-5	5-6	5-6	5	5-6	6	6	
6-7	6-7	6	7-8	7	6-7	6-7		5-6	6	6	5-6	6	7	6-7	
6-7	7	6-7	7-8	7	7	7		6	6-7	6-7	6	6-7	7-8	7	
7	7	6-7	7-8	7	7	7		6-7	7	7	6-7	7	7-8	7	
5	5	5	5	5	5	5		4-5	5	5	5	5	5	4-5	
5	4-5	5	5	5	5	5		5	5	5	5	5	5	5	
5	4	4-5	5	5	5	5		4-5	5	5	4-5	5	5	4-5	
5	5	5	5	5	5	5		5	5	5	5	5	5	5	
5	5	5	5	5	5	5		5	5	5	5	5	5	5	
5	3-4	5	5	5	4-5	4-5		5	5	5	4-5	5	5	5	
U A	U A	U A	U A	U A	U A	U A		U A	U A	U A	U A	U A	U A	U A	
4-5	5	5	5	5	5	5		4-5	5	5	5	4-5	5	5	4-5
5	5	2-3	4-5	4-5	5	5		4-5	5	4-5	5	4-5	5	5	4
5	5	5	5	5	5	5		5	5	5	5	5	5	5	5
5	5	5	5	5	5	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	4	5	5	5	5		5	5	5	5	5	5	5	5
5	5	4	5	5	5	5		4-5	5	4-5	5	5	5	5	4-5
5	5	4-5	5	5	5	5		5	5	5	5	5	5	5	5
M S	M S	M S	M S	M S	M S	M S		M S	M S	M S	M S	M S	M S	M S	
5	3DR	5	4	4-5	4-5	5		5	3WY	5	3Y	5	2W	4-5	5
5	5	5	5	5	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
5	5	5	5	5	5	5		5	5	5	5	5	5	5	5
4-5	4-5	4-5	5	4-5	5	5		5	5	5	5	5	5	5	4-5
5	4-5	4	5	4-5	3	4		4	4	3-4	3-4	4	4	4	4
4-5	4-5	4-5	4-5R	5	4-5	4-5		4-5	4-5	4-5	4-5D	4	5	4-5	
RD	R	R	B	R	Y	Y		Y	Y	Y	Y	Y	R	Y	
4	2-3	4-5	4/3-4	4	2-3	2-3		3-4	3	2	1-2	3	3-4	3	

yes

Brown S-GR 0.75%	Green S-G 2.0%	Olive S-G 1.5%	Navy S-R 3.0%	Navy S-B Grains 2.0%	Navy S-BRL 3.0%	Grey S-BG Grains 0.75%
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25	30	10	40	25	15	40
40	30	25	50	35	15	45
6-7	5-6	4	4	4-5	6	5-6
7	6	5	5	5-6	6	6
7-8	6-7	6	6	6	6	6-7
7-8	6-7	6-7	7	7	6-7	7
5	4-5	4-5	5	5	5	4-5
5	4	5	5	5	5	5
5	4/3-4	3-4	5	4-5	4-5	4
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	4-5	4-5	4	4-5

U A	U A	U A	U A	U A	U A	U A
5 5	5 5	4-5 5	4-5 5	5 5	5 5	5 5
4-5 5	5 5	4-5 5	4 5	3-4 5	1-2 3	3-4 5
5 5	5 5	5 5	5 5	4-5 5	5 5	5 5
5 5	5 5	5 5	4-5 5	5 5	5 5	5 5
5 5	4 5	5 5	4-5 5	5 5	5 5	5 5
5 5	3-4 5	5 5	5 5	5 5	5 5	5 5
M S	M S	M S	M S	M S	M S	M S
5 1W	4-5 3	4-5 2W	4-5 3W	4-5 3W	4-5 3-4	5 2WD
5	5	5	5	5	5	5
5	5	5	4-5	5	4-5	5
5	5	5	5	5	4-5	5
5	4-5	5	5	5	4	5
4	4-5Y	4-5	3-4	3-4	5	4
5	4-5	4-5	4	4-5	5	4-5

R	R	Y	R	D	D	R
3	2-3	2	2	2	2	2-3

Grey S-GL 0.75%	Black S-2B Grains 4.0%	Black S-BN 4.0%	Black S-G 4.0%	Yellow M-3R 0.8%	Scarlet M-L 0.8%	Bordeaux M-B 1.3%
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15	45	45	35	10	80	15
30	60	60	50	30	100	40
6	6	5-6	5-6	6	5	5
6-7	6-7	6	6-7	6	6	6
6-7	7	6-7	7	6-7	6-7	6
7	7	7	7	7	6-7	6-7
5	5	5	4-5	5	5	5
5	4-5	4-5	4-5	4-5	4-5	5
5	4	4	4	4-5	4	4-5
5	5	5	5	5	5	5
5	5	4-5	5	5	5	5
5	3	3	3-4	4-5	4-5	5

U A	U A	U A	U A	U A	U A	U A
4-5 5	5 5	5 5	4-5 5	5 5	4-5 5	5 5
4-5 5	2 4-5	2 4-5	2 4-5	4-5 5	4-5 5	5 5
5 5	4-5 5	4-5 5	4-5 5	5 5	5 5	5 5
5 5	5 5	5 5	4-5 5	5 5	4-5 5	5 5
5 5	4-5 5	4-5 5	4 5	5 5	4 5	4-5 5
5 5	4-5 5	4-5 5	4 5	4-5 5	4 5	4-5 5
5 5	5 5	5 5	4-5 5	5 5	5 5	5 5
M S	M S	M S	M S	M S	M S	M S
5 3-4	5 4	5 4DG	5 4	5 4-5	4-5 2	5 1W
5	5	5	5	5	5	5
5	4-5	5	4-5	5	5	4-5
5	4-5	4-5	4-5	5	5	5
5	4-5	4-5	4-5	5	5	5
5	4-5	4	4-5	4D	4	3B
4-5	5	4-5	4-5	4-5	4-5	4

R	R	R	R	R	Y	Y
4	3	3	3	5	3	1

Utrilan M dyes

Brown	Navy	Black	Black	Black
M-BL	M-BRX	M-R	M-RX	M-G
1.3%	1.7%	4.0%	2.5%	4.0%



50	80	60	80	40	25°C	Minimum Solubility g/l
50	150	70	150	50	90°C	
6	5-6	6	6	6	1/12	Light Fastness Xenotest
6-7	6	6-7	6-7	6-7	1/3	
6-7	6-7	7	7	7	1/1	
7	7	7	7	7	2/1	
5	5	5	5	5	E	Water
4-5	4-5	4-5	4-5	4-5	Wo	
4-5	4-5	4	4	4	N	
5	5	5	5	5	E	Washing 40°C
5	5	5	5	5	Wo	
5	4-5	4	4	4	N	
U A	U A	U A	U A	U A	-	Washing 60°C
5 5	4-5 5	5 5	5 5	5 5	E	
5 5	4-5 5	2 5	2 5	2 5	N	
5 5	5 5	5 5	5 5	5 5	C	
5 5	4-5 5	5 5	5 5	5 5	E	Alkaline Perspiration
5 5	5 5	4 5	4 5	4 5	Wo	
4-5 5	4-5 5	3-4 5	3-4 5	3-4 5	N	
5 5	5 5	4-5 5	4-5 5	4-5 5	C	
M S	M S	M S	M S	M S	-	Chlorinated Water
5 1-2	4-5 2WD	5 3-4	5 3-4	5 2-3WG	E	
5	5	5	5	5	E	Carpet Shampoo
5	4-5	4-5	4-5	4-5	N	
5	5	4-5	5	4-5	D	Rubbing
4-5	5	4-5	4-5	4-5	W	
4	3-4	4-5	4-5	4-5	Cu	Effect of metals
4-5	4-5	4-5	4-5	4-5	Fe	
Y	R	R	R	R	E	Artificial Light
3	2	3	3	3	-	Discharge-ability

shading

For shading additions cool the liquor to below 70°C, add predissolved dye, run 10 minutes, heat at 98°C and maintain for 30 minutes before cooling and checking shade.

aftertreatment

The wet fastness of medium and heavy shades can be improved by an aftertreatment in a fresh bath with 2 – 4% **Dyapol SB-40** at pH 4.5 with acetic acid at 60 - 70°C for 20 minutes.

auxiliaries

Dyamul SN-MP is a low foaming high performance detergent incorporating a sequestrant specially formulated for use in the scouring of synthetic fibres

Dyamul SLX is a highly concentrated detergent for dissolving and emulsifying mineral oils and waxes especially from synthetic elastane blends.

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 metal complex dyes.

Intratex CW is an aftertreatment which improves the chlorine water fastness of acid dyes on PA/elastane swimwear.

catalytic fading

Neutrilan Yellow K-GR can cause fading of Neutrilan Navy SB and certain azo dyes, especially reds and anthraquinone acid dyes. It is advisable to check the light fastness of such combinations before proceeding to bulk.

ultrafiltrated products

Neutrilan Black M-RX, Neutrilan Black M-RX liquid, Neutrilan Navy M-BRX and Neutrilan Navy M-BRX liquid are manufactured using an ultra-filtration technique giving rise to:-

- the most concentrated 1 : 2 metal complex black and navies available
- low free and total chromium content giving a more environmentally acceptable product
- excellent solubility
- low electrolyte content
- low cross-staining

products available as liquids

- Neutrilan Black A – RB liquid - Strength is 500:100 weaker
- Neutrilan Black S - 2BX liquid - Strength is 500:100 weaker
- Neutrilan Brown M - BL liquid - Strength is 250:100 weaker
- Neutrilan Navy M - BRX liquid - Strength is 400:100 weaker
- Neutrilan Black M - RX liquid - Strength is 420:100 weaker
- Neutrilan Black M - GX liquid - Strength is 260:100 weaker

description

Neutrilan A dyes: (1:2 metal complex dyes with disperse type properties)

- Excellent light fastness
- Good level dyeing properties
- Excellent coverage of lycra in polyamide/lycra blends

Recommended trichromat:

Neutrilan Yellow A-3R

Neutrilan Red A-RB

Neutrilan Black A-RB

Neutrilan K dyes: (non-sulphonated 1:2 metal complex dyes)

- Outstanding light fastness
- Good level dyeing properties
- Selected dyes highly suitable for the production of pale shades on automotive fabrics
- Suitable for the dyeing and printing of carpets

Recommended trichromat:

Neutrilan Yellow K-NW

Neutrilan Bordeaux K-RL

Neutrilan Grey K-BL

Neutrilan S dyes: (mono-sulphonated 1:2 metal complex dyes)

- Excellent fastness to light
- Excellent compatibility and level dyeing
- Good wet fastness
- Suitable for the dyeing of all fibre blends with polyamide
- Selected dyes suitable for resist and displacement printing of carpets

Recommended trichromat:

Neutrilan Yellow S-2G

Neutrilan Red S-GN grain

Neutrilan Grey S-BG

Neutrilan M dyes: (di-sulphonated 1:2 metal complex dyes)

- Excellent wet fastness
- Very economic in heavy shades
- Suitable for resist and displacement printing of carpets

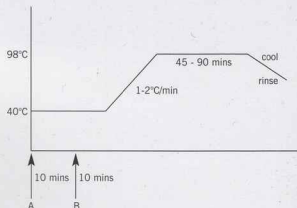
Recommended trichromat:

Neutrilan Yellow M-3RL

Neutrilan Bordeaux M-B

Neutrilan Navy M-BRX

dyeing profile for neutrilan dyes



A – Sodium Acetate

Intratex AL

Acetic Acid

B – Neutrilan dyes

general exhaust dyeing method

Preparation

- Alkaline Scour
1ml/l **Dyamul SN-MP**
2g/l Sodium Carbonate
60°C for 20 minutes
- For garments containing lycra
1ml/l **Dyamul SLX**

General dyeing method

- Start bath at 40°C with **Intratex AL**
1g/l Sodium Acetate and 0.3g/l Acetic Acid
Adjust pH to 5.5 – 6.0 (4.5 – 5.0 for heavy shades)
- Run 10 minutes
- Add Neutrilan dyes and run 10 minutes
- Raise to 98°C at 1° - 2°C per minute
- Run 45 to 90 minutes (dependant on shade)
- Cool and rinse