

























Serilene A

dyes for automotive outlets



fastness properties

Serilene			Shade under tungsten light	Light fastness				Sublimation fastness 1/1		Suitability for alkali dyeing	Comments
				DIN 75202 3 times 1/10	3 times 1/1	B02 Xenon 1/10	1/1	CC	SP		
Yellow A-GL 0,20% & 2,00%			neutral	3 - 4	3 - 4	7	7	5	3 - 4	-	*Yellow component for high light fastness requirements in combination with Pink A-2GN and Blue A-BL.
Yellow A-HG 0,20% & 2,00%			redder	4 - 5	4 - 5	7	7	5	4 - 5	+	*Yellow component for the highest light fastness requirements in combination with Pink A-2GN and Blue A-BL.
Yellow A-2R 110 0,20% & 2,00%			redder	3 - 4	4	6 - 7	7	5	4	+	*Alternative yellow component for high light fastness requirements in combination with Pink A-2GN and Blue A-BL.
Yellow Brown A-BR 117 1,00% & 2,00%			redder	-	4	6 - 7	7	5	4 - 5	+	*Strong & economical with good build up. *Particularly suitable as a shading component for dark shades.
withdrawn			yellow	4 - 5	4 - 5B	7	7	5	4	+	*Trichromatic red component with Yellow A-GL and Blue A-BL.
Pink A-2GN 0,20% & 2,00%			yellow	4 - 5	4 - 5B	7	7	5	4	+	*Recommended red component for all high light fastness requirements. *Superior build up & dyeing properties to Serilene Pink A-2G.
Red A-TB 0,24% & 2,40%			yellow	3B	3B	7	6 - 7	5	5	-	*Bright bluish red shade suitable for 1 times Fakra.
Blue A-BLF 0,20% & 2,00%			redder	3 - 4	4	6 - 7	7	5	4	+	*Redder and brighter blue than Serilene Blue A-BL with excellent dyeing properties.
withdrawn			neutral	3 - 4	4	6 - 7	7	5	4 - 5	+	*Blue component for high light fastness requirements in combination with Yellow A-GL and Pink A-2GN.
withdrawn			greener	4	4	7	7	5	4 - 5	+	*Blue component for the highest light fastness requirements in combination with Yellow A-HG and Pink A-2GN.
withdrawn			greener	4	4	7	7	5	4	+	*Greenish blue for high light fastness requirements with good levelling properties.
Blue A-2G 0,30% & 3,00%			greener	4 - 5	4 - 5	6 - 7	7	5	3 - 4	+	*Bright greenish blue for high light fastness requirements. *Suitable for correcting metamerism to the greener side.

fastness properties

All light fastness tests have been carried out on 100% woven polyester fabric at 1/10 and 1/1 standard depths. The sublimation fastness tests have been carried out at 1/1 depth.

Light fastness

In the Fakra light fastness test, a foam-backed material must be used.

Typical conditions for this test are given below:

Fakra – exposure to light according to DIN 75202

Xenotest 450

Room temperature 40 – 50°C

Relative humidity 20% +/- 10%

Black standard temperature 115°C +/- 3°C

Parallel course

Testing time of 96 hours until grade 6 of the blue standard is similar to grade 3 of the grey standard.

Assessment is made of the change in shade by means of the grey scale on 1/10 and 1/1 standard depth.

Xenon light tests

Xenotest ISO 105 – B02

Sublimation fastness

ISO 105 - P01 30 seconds at 180°C

Abbreviations

CC = Change in colour

SP = Staining of polyester

Note: Both the particular type of polyester fabric and the application method used can have a significant effect on light fastness.

It is advisable to test beforehand under the specific conditions to be used.

suitability for alkali dyeing

The dyes have been tested for their suitability for the Yorkshire Alkali Dyeing process.

2 – 3 g/l **Dyapol CA-BD**, pH 9.5

1g/l **Dyapol NS**

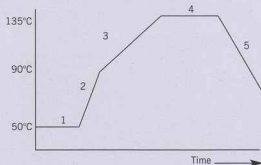
Dyed for 60 minutes at 135°C

+ = suitable - = not suitable

typical dyeing process

A higher dyeing temperature of 135°C is recommended to achieve the best levelling.

typical dyeing profile



1. After preparation set the bath at 50°C with:
X% Serilene A dye (pre-dispersed and added through a sieve)
1g/l **Dyapol NS** (dispersing agent)
1g/l **Dyapol AB** (pH 4.5 to 5.0)
3% **Dyapol K-UV** (UV absorber)
2. Raise the temperature to 90°C at 2 to 3°C per minute.
3. Raise the temperature to 135°C at 1 to 2°C per minute.
4. Dye for 60 to 90 minutes at 135°C
5. Cool to 70°C at 1 to 2°C per minute.

Aftertreatment

- Set the bath at 50°C with:
2g/l Caustic Soda
2g/l Sodium Hydrosulphite
1g/l **Dyamol RCL**
- Raise to 70°C and run for 20 minutes.
- Drop the bath, rinse and neutralize with acetic acid.



dyeing combinations

Each dye on the **Serilene A** range has excellent light fastness. However, in combination shades, care has to be taken to ensure that the fading for that particular shade is compatible and 'on tone'. Therefore it is essential to test the particular shade on the type of polyester fabric being used. With critical shades, the use of **Dyapol K-UV** can give improved results.

The following can be used as a guide:

Trichromatic combinations to meet high light fastness requirements

Serilene Yellow A-GL or Serilene Yellow A-2R

Serilene Pink A-2GN

Serilene Blue A-BL

Changes within the automotive industry have seen a shift to even higher light fastness requirements.

Trichromatic combinations to meet the highest light fastness requirements

Serilene Yellow A-HG

Serilene Pink A-2GN

Serilene Blue A-GB

auxiliary selection

Dyapol NS

- Naphthalene Sulphonate dispersing agent for disperse dyes, effective throughout the high temperature dyeing cycle.

Dyapol AB

- Buffer with built in dispersing & sequestering action
- Used to maintain a dyeing pH of between 4.0 – 4.5
- Overcomes problems of variable alkalinity in water supplies.

Dyapol K-UV

- UV light absorber for increasing light fastness of disperse dyes on polyester automotive fabrics
- Applied simultaneously with Serilene A dyes.

Dyapol CA-BD

- Blend of alkali buffers & sequesterants
- Used in alkali dyeing processes to maintain the dyeing pH between 9.0 – 9.5 in order to keep oligomers solubilised.

description

Serilene A dyes:

- are designed to meet the **highest light fastness requirements** for automotive outlets, polyester microfibre and other high light fastness end uses, when used not only as single dyes but also in combination shades
- are recommended for both yarn & piece dyeing
- show excellent dispersion stability.

Selected **Serilene A** dyes are suitable for alkali dyeing.

Serilene A dyeing system

- a further improvement in light fastness can be achieved by the addition of **Dyapol K-UV** (UV absorber) into the dyebath
- the use of **Dyapol CA-BD** under alkali dyeing conditions can help remove oligomers from fabrics & yarns.