
SÖZAL
Segacid/Segaset
Segasol
Dyes for polyamide
& wool & silk

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Dyeing on Polyamide	Segacid (Milling)	Solubility at 90 °C g/l	Fastness Properties					Dischargeability (Zn Sulfoxylate Formaldehyde)
			Light fastness ISO 105 B02-1994 (/1/1 SD)	Washing fastness ISO 105 C02	Water Severe ISO 105 E01	Perspiration fastness (Alk.) ISO 105 E04	Rubbing ISO 105 X12 Dry / Wet	
	Yellow FG 200% 1.00% *C. I. Acid Yell. 49*	50	6+	4 3-4 4	4 4 4-5	4 3-4 4	5 4-5	4
	Yellow 3RL 1.00% C. I. Acid Or. 67	60	6+	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4 4	5 5	4
	Red A3G 1.00% C. I. Acid Red 447	40	3-4	4-5 4-5 4	5 4-5 4-5	4-5 4-5 4-5	4-5 4	4
	Red C2F 1.60% C. I. Acid Red 336	60	4-5	4-5 4-5 4	4 4 4	4-5 4 4-5	5 5	3
	Blue BAR 200% 1.00% C. I. Acid Bl. 324	40	6+	4 2-3 3-4	3 3-4 4	2-3 3 3	4-5 4-5	3
	Red M F2R 1.00% C. I. Acid Red 151	50	4	3 3 3	3 3 3	3-4 3-4 3-4	4 3-4	5
	Red M 2BN 1.10% C. I. Acid Red 249	50	4-5	4-5 4-5 4-5	4-5 3-4 4	4 3-4 4-5	5 5	4
	Red M 3BN 140% 0.80% C. I. Acid Red 131	40	4-5	4-5 4-5 4-5	5 3-4 4-5	4 3-4 4	4-5 4	3
	Brilliant Red M 10B 142% 0.70% C. I. Acid Vi. 54	60	4-5	4-5 4-5 4-5	5 3-4 5	4 3-4 4	5 4-5	5
	Cyanine M G 0.90% C. I. Acid Bl. 90	80	2-3	3-4 3-4 3	3-4 2 4	3-4 1-2 3	4-5 3-4	4
	Fast Navy Blue M 5R 235% 1.30% C. I. Acid Bl. 113	50	5-6	4-5 4-5 4	5 3-4 5	5 3-4 5	4-5 4	4

Dyeing on Polyamide	Segacid 1:2 Metal Complex	Solubility at 90 °C g/l	Fastness Properties					Discharageability (Zn Sulfoxylate Formaldehyde)
			Light fastness ISO 105 B02-1994 (/1/1 SD)	Washing fastness ISO 105 C02	Water Severe ISO 105 E01	Perspiration fastness (Alk.) ISO 105 E04	Rubbing ISO 105 X12 Dry / Wet	
	Yellow SG 0.75% C. I. Acid Yell. 232	80	6	4-5 4-5 4	5 5 4-5	4-5 4-5 3-4	5 4-5	4
	Yellow S-2GL 1.00% C. I. Acid Yell. 235	60	6+	5 5 4-5	5 4-5 4-5	5 4-5 4-5	5 4-5	3
	Red S-RL 0.75% C. I. Acid Red 414	80	6+	5 4 5	4-5 4-5 4-5	4-5 5 4-5	5 5	2
	Red S-G 1.00% C. I. Acid Red 315	50	4	4-5 3-4 4-5	4-5 4-5 4	4-5 4-5 4-5	5 5	1
	Bordeaux S-B 0.90% C. I. Acid Red 405	80	3-4	4-5 3-4 5	4 4-5 4-5	4 5 4-5	5 5	1
	Bordeaux 2S-B 0.80% C. I. Acid Vi. 90	50	6	4-5 4-5 4-5	4 3-4 5	4 3-4 4-5	4-5 4	1
	Navy 2S-RL 0.80% C. I. Acid Bl. 193	40	6+	4 4 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4 3-4	4
	Black M-RL 165% 0.72% C. I. Acid Bk. 194	100	6+	4-5 4 4-5	4-5 4-5 5	4-5 4-5 5	4-5 4	2-3

Dyeing on Polyamide	Segaset	Solubility at 90°C g/l	Fastness Properties					
			Light fastness ISO 105 B02-1994 (/1/1 SD)	Washing fastness ISO 105 C02	Water Severe ISO 105 E01	Perspiration fastness (Alk.) ISO 105 E04	Rubbing ISO 105 X12	Dischargeability (Zn Sulfoxylate Formaldehyde)
							Dry / Wet	
	Yellow 4GN 1.30%	80	6+	4-5 4-5 4-5	4 4-5 4-5	4-5 4 4	5 4-5	5
	Yellow 2R 1.50%	70	6	4 4-5 3-4	5 5 4-5	4-5 4-5 4-5	5 5	4-5
	Orange RN 1.80%	80	6	4 4-5 4	4-5 4-5 4-5	4-5 4-5 4	5 4-5	5
	Red G 1.00%	70	6+	4-5 4-5 4-5	4-5 5 4-5	5 5 3-4	5 4	2-3
	Bordeaux B 0.95%	80	6	4-5 4-5 4-5	4-5 5 4-5	5 5 3-4	5 4-5	2-3
	Violet B 1.70%	50	4	4-5 3-4 4-5	4-5 3-4 4-5	4-5 3-4 4-5	5 5	2
	Blue 2R 2.00%	100	6	4-5 3-4 4	5 4-5 4-5	5 4 3-4	5 5	2
	Blue 5G 2.20%	100	6+	4 4 4-5	5 4-5 4-5	5 4-5 4	4-5 4	2
	Green B 1.90%	40	6+	4 3-4 4-5	4-5 4-5 4	4 4 3-4	5 4-5	2
	Navy R 2.20%	70	5-6	4-5 4 4	4-5 4-5 4-5	4-5 4-5 4	5 4-5	4-5
	Brown G 1.40%	80	6	4-5 4 4-5	4-5 4 4-5	5 4-5 4-5	5 4-5	4

Dyeing on Polyamide	Segaset	Solubility at 90°C g/l	Fastness Properties					Dischargeability (Zn Sulfoxylate Formaldehyde)
			Light fastness ISO 105 B02-1994 (/1/1 SD)	Washing fastness ISO 105 C02	Water Severe ISO 105 E01	Perspiration fastness (Alk.) ISO 105 E04	Rubbing ISO 105 X12 Dry / Wet	
	Brown B 1.20%	70	4-5	4 4-5 4-5	5 5 4-5	4-5 4-5 4-5	5 4-5	4
	Grey G 1.00%	70	5-6	4-5 4 4-5	4-5 3-4 4-5	4 4-5 4-5	5 4-5	4-5
	Black B 2.00%	65	6	5 4 4-5	4-5 5 4-5	4 4-5 4-5	4-5 4	2

Dyeing on Wool	Segasol	Solubility at 90°C g/l	Fastness Properties					Dischargeability (Zn Sulfoxylate Formaldehyde)
			Light fastness ISO 105 B02-1994 (/1/1 SD)	Washing fastness ISO 105 C02	Water Severe ISO 105 E01	Perspiration fastness (Alk.) ISO 105 E04	Rubbing ISO 105 X12 Dry / Wet	
	Yellow 4G 1.40%	100	6+	3-4 4-5 5	4-5 4-5 4-5	4-5 4-5 4-5	5 5	5
	Yellow CE 1.70%	20	6	3-4 5 5	4 4-5 4-5	4-5 4-5 4-5	5 5	4
	Orange RG 1.40%	40	5-6	3 5 4-5	4-5 4-5 4-5	4 4-5 4-5	5 5	4
	Scarlet 3G 1.60%	100	5-6	4 5 4-5	4 4-5 4-5	4 4-5 4-5	5 5	4
	Red CE 1.70%	100	5-6	3 5 4-5	4-5 4-5 4-5	4-5 4-5 4-5	4-5 4-5	3-4
	Red 6G 1.20%	50	6	4 5 4-5	4-5 4-5 4-5	4 4-5 4-5	5 4-5	4
	Red GN 1.80%	40	5	3-4 5 4-5	4-5 4-5 4-5	4 4-5 4-5	4-5 4-5	3-4

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Dyeing on Polyamide	Segasol	Solubility at 90 °C g/l	Fastness Properties						Dischargeability (Zn Sulfoxylate Formaldehyde)
			Light fastness ISO 105 B02-1994 (/1/1 SD)	Washing fastness ISO 105 C02	Water Severe ISO 105 E01	Perspiration fastness (Alk.) ISO 105 E04	Rubbing ISO 105 X12 Dry	Rubbing ISO 105 X12 Wet	
	Red B 1.00%	100	5-6	4 5 4-5	4-5 5 4-5	4-5 4-5 4-5	5	5	5
	Red 5B 0.75%	40	5	3-4 5 4-5	4 4-5 4-5	4 4-5 4-5	5	4	4-5
	Blue 3R 1.90%	100	5-6	4 4-5 4-5	5 3-4 4-5	4-5 4-5 4-5	5	5	2
	Blue 3G 1.50%	50	5-6	3-4 4-5 4-5	4-5 4-5 4-5	3-4 4-5 4-5	5	5	2
	Blue CE 1.90%	40	5	4 5 4-5	4-5 4-5 4-5	4 4-5 4-5	4-5	4-5	1-2
	T. Blue 5G 1.50%	100	5	4 4-5 3-4	4-5 4-5 4-5	4 4-5 4-5	2-3	2-3	3
	Navy CE 3.00%	100	4-5	4-5 4-5 4-5	5 4-5 4-5	4-5 4-5 4-5	4	4	3-4
	Black CE 4.00%	100	6	4-5 4-5 4-5	5 4-5 4-5	4-5 4-5 4-5	4-5	4-5	3-4
	Deep Black CER 150% 4.00%	100	6	4 4-5 4-5	5 4-5 4-5	5 4-5 4-5	4-5	4-5	3-4

Segacid dyes

These dyes have very good levelling properties. Coverage of barre is good. They are suitable for trichromatic combination shades. Segacid range is especially recommended for carpet and sportswear coloration.

Segacid (Milling)

Segacid dyes exhibit excellent all round fastness properties. These dyes exhaust from a strongly acidic bath.

- Levelling acid dyes for polyamide
- Milling acid dyes, preferred for deep and brilliant shades on polyamide / wool

Segacid Dyes (1:2 Metal complex dyes)

- Good levelling.
- Good wet fastness.
- Outstanding light fastness.
- Highly suitable for the production of pale shades on automotive fabrics.
- Products are suitable for dyeing carpets & printing of wool, polyamide and its blends.
- Good overall fastness in heavy shades.
- High color yield and economic.

Segaset

Segaset is the dye range for

- Simple, cost-effective application.
- High fastness properties in processing and use without after treatment.
- Good reproducibility.
- Application on Nylon, Silk and Wool.

Segasol Dyes

A new concept in wool coloration

Segasol dyes are modified reactive dyes specially suited for coloration of wool.

Covalent dye-fibre bonds produce dyeing of excellent wet fastness.

Notes to fastness data:

The fastness properties were tested and evaluated in accordance with following standard test method at 1/1 SD.

Light fastness	AATCC 16E 40 AFU
Fastness washing	ISO 105 C02
Water severe	ISO 105 E01
Fastness to perspiration (Alkaline)	ISO 105 E04
Fastness to rubbing Dry/Wet	ISO 105 X12

Key to figures:

1st figure	:	Change of shade
2nd figure	:	Staining of wool (Adjacent fabric)
3rd figure	:	Staining fo cotton (Adjacent fabric)
Solubility	:	Dist. Water, Filter Paper MN 918
Dischargeability	:	Rating
		1 Non Dischargeable
		2 to 4 Moderate Dischargeable
		5 Fully Dischargeable

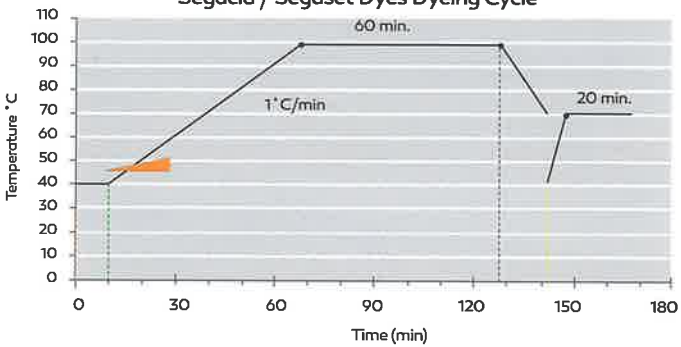
Dissolving the dyes

Paste the dyes with cold water, then add boiling water or boil up briefly.

Dyebath pH

Irrespective of shade depth and stage of processing, Segaset dyes are applied at pH 4.5 on all the substrates as mentioned above.

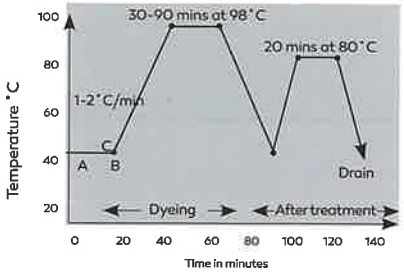
Segacid / Segaset Dyes Dyeing Cycle



----- Segacid / Segaset Dye, Segalevel SET - 1 g/l, Segacid PAD- 1 g/l, Finish pH=4.5

----- Rinsing: Segafix PA=3 g/l (pH:4.0)

Segasol dyes dyeing cycle



Dyeing recipe

5 - 10%	Glauber's salt anhydrous (recommended for pale shades)
X%	Acetic acid (pH 6 for pale and pH 4.5 for dark shade
3 - 4%	Sodium acetate / ammonium sulphate as buffer start the bath with acetic acid (pH 4.5 to 6 depending on depth of shade)
1 g/l	Segalevel B (Levelling agent)

After-treatment

An after treat, preferably, in a fresh bath with 1.5 gpl ammonia (pH 8 - 8.5) at 80 - 85°C improves the wet fastness significantly.

This is followed by through rinse and an acid wash with 1% Formic acid/ acetic acid.

By pre-treatment bleaching of wool with hydrogen peroxide helps to produce brilliant shade with Segasol dyes.

SÖZAL

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