Feature and Benefits

Remazol® SAM is a new reactive dye range for exhaust and pad application

- ✓ **For pale to dark shades**
- ✓ **Good fastness profile**
- ✓ **Strong build-up**
- ✓ **High fixation yield**
- ✓ **Competitive costs**

Product Overview

Dyes for pale to medium shades

- ✓ Remazol Yellow SAM, low-photochromic ternary yellow
- ✓ Remazol Red SAM, high fast ternary red
- ✓ Remazol Blue SAM, universal ternary blue
- ✓ Remazol Grey SAM, high fast grey for critical shades

Dyes for medium to dark shades

- ✓ Remazol Gold SAM, ternary golden yellow with good build-up
- ✓ Remazol Terra Cotta SAM, reddish ternary yellow for dark shades
- ✓ Remazol Orange SAM, bright orange for special shades
- ✓ Remazol Maroon SAM, ternary red with outstanding build-up
- ✓ Remazol Royal SAM 01, mainly as self shade for deepest royal shades
- ✓ Remazol Pacific SAM, ternary blue for medium shades
- ✓ Remazol Space SAM, deep navy with high build-up performance

Eco Profile

- ✓ Full compliance with Oeko-Tex® Standard 100
- ✓ Meet all relevant Restricted Substances Lists (RSL's)
- ✓ Applied for GOTS
- ✓ bluesign® approved

Additional information for Remazol® SAM dyes in pad application

Remazol Orange SAM is not stable in CPB and PS pad liquors. Thus CPB and Pad-steam (PS) is not recommended. In Pad-dry-pad-steam (PDPS) concentrations > 30 g/l (25°C) are not recommended.

In CPB we recommend for pale shades alkali method 2. At temperatures > 25°C tropical method 3 supplies better pad-liquor stability.

Remazol Royal SAM 01 should be used as single shade. It is not suitable as shading dye.

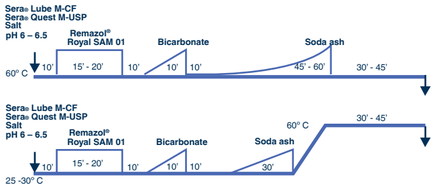
Explanation to alkali methods:
Alkali 1 = Remazol Silicate 50 method
Alkali 2= Levafix® CA Silicate 50 method
Alkali 3= Tropical Silicate Method

The corresponding silicate free soda ash/caustic methods can be used either. Pad-liquor stability is lower if silicate free alkali is taken.

Special recommendation for Remazol® Royal SAM 01

Remazol® Royal SAM 01 should not be used in concentration below 1%

On bleached cotton



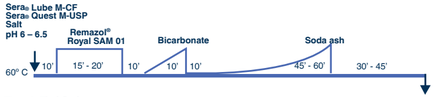
For LR 10:1

Remazol® Royal SAM 01					
Dyestuff concentration		1.0-2.0	2.0-3.0	3.0-5.0	> 5.0
Salt	g/l	40-50	50-60	60-80	80-100
Sodium bicarbonate	g/l	0.5	0.5	0.5	0.5
Soda ash	g/l	10-13	13-15	15-20	20

For LR 5:1

Remazol® Royal SAM 01					
Dyestuff concentration		1.0-2.0	2.0-3.0	3.0-5.0	> 5.0
Salt	g/l	25-35	35-45	45-60	60-80
Sodium bicarbonate	g/l	0.6	0.6	0.6	0.6
Soda ash	g/l	12-16	16-18	18-25	25.0

On mercerized cotton and viscose



For LR 10:1

Remazol® Royal SAM 01					
Dyestuff concentration		1.0-2.0	2.0-3.0	3.0-5.0	> 5.0
Salt	g/l	30-40	40-50	50-60	60
Sodium bicarbonate	g/l	0.5	0.5	0.5	0.5
Soda ash	g/l	5-7	7-9	9-13	13

Recommended shading dyes for Remazol® Royal SAM 01

- Remazol® Yellow SAM
- Remazol® Gold SAM
- Remazol® Orange SAM
- Remazol® Red SAM

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Remazol® SAM

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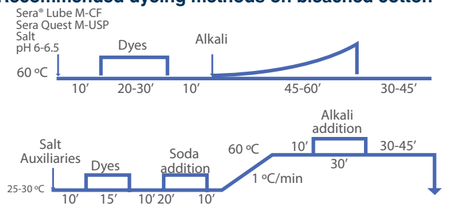
Remazol® SAM

Dyeing properties and applications

	Yellow SAM	Red SAM	Blue SAM	Grey SAM	Gold SAM	Orange SAM		Terra Cotta SAM	Maroon SAM	Royal SAM 01	Pacific SAM	Space SAM
Dyed concentration for illustration (1/1 S.D. on bleached CO knit)	2,4	5,3	3,6	4,2	2,5	3,2		1,2	0,9	2,65	3,1	2,7
Fixation (%)	>80	>85	>80	>80	>75	>70		>75%	>80	>80	>80	>80
Suitability for exhaust dyeing	+	+	+	+	+	+		+	+	+	+	+
Suitability for CPB (Alkali options, explanation see text part)	1 / 2 / 3	(1) / 2 / 3	1 / 2 / 3	1 / 2 / 3	1 / 2 / 3	---		1 / 3	1 / 3	1 / 2 / 3	1 / 3	1 / 3
Suitability for PDPS	+	+	+	+	+	(+)		+	+	+	+	+
Suitability for PS	+	+	+	+	+	---		+	+	(+)	+	+
Fastness to light (ISO 105 B02), 1/12 standard depth	4-5	4-5	5	5	3-4	3		3-4	3-4	5	3-4	3
Fastness to light (ISO 105 B02), 1/1 standard depth	5-6	5	5-6	6	4-5	4		4-5	4-5	5-6	5	4-5
Fastness to light & perspiration, alkaline (ISO 105-B07)	4-5	4-5	4-5	4-5	4-5	4		4-5	3-4	4-5	3-4	3
Fastness to water, severe (ISO 105 E01) - staining CO	5	5	5	5	5	5		5	5	5	5	4-5
Fastness to perspiration, acid (ISO 105 E04) - shade/staining CO	5/5	5/5	5/4-5	5/5	5/5	4-5/4-5		5/5	4-5/4-5	5/5	5/5	4-5/4-5
Fastness to perspiration, alkaline (ISO 105 E04) - shade/staining CO	5/5	5/5	4-5/4-5	5/4-5	4-5/5	4-5/4-5		4-5/4-5	5/5	5/5	5/5	4-5/4-5
Home laundry / washing 60°C (ISO 105-C06 C2S)- staining CO/PA	5/5	5/5	4-5/5	5/5	5/5	4-5/4		4-5/4-5	4-5/5	4-5/4	5/5	4-5/5
Simulated multiple wash with activated bleach detergents (ISO 105-C09) - shade	4-5	4-5	4-5	4-5	5	4		4-5	4-5	4	4	3-4
Mercerizing, (ISO 105-X04) - shade/staining CO	5/4-5	4/4-5	5/4	4/4-5	4/4-5	4-5/4		4D/4-5	2B/4	4/4	5/4	4
Fastness to chlorinated water (20 ppm) (ISO 105-E03) - shade	5	3	4-5	2	2-3	3-4		3-4D	4-5	2	4	4
Nitrogen oxides, 1x / 3x (ISO 105-G01) - shade	4-5/4-5	4B/3B	4-5G/4G	4/4	5/5	4-5/4		4-5/4D	5/4-5	4R/3R	4-5/4-5	5/5
Hot pressing dry, (ISO 105-X11-T) - shade immediate/4h	4/4-5	2-3/5	4/5	3/4-5	4-5/5	4/4-5		2-3/4-5	2-3/4-5	3/4-5	4R/5	4-5/5
Hot pressing wet, (ISO-X11-N) - shade immediate/4h	4/4-5	3-4/5	4/5	3/4-5	4/5	3-4/4		3-4/4-5	3-4/4-5	4-5/4-5	4/5	4-5/5
Rubbing, (ISO 105-X12) - dry / wet	4-5/3-4	4-5/3-4	5/4	5/4	4-5/3-4	5/3		4-5/3	4-5/3-4	4-5/2-3	5/3-4	4/2-3
Dry-cleaning (perchloroethylene, ISO 105-D01) - shade/staining solvent	5/5	4-5/5	5/5	4-5/5	5/5	4-5/4-5		5/5	4/4-5	5/5	5/5	4-5/5

Recommended dyeing methods on bleached cotton



For LR 10:1

Dyestuff concentration		<0.1	0.1-0.5	0.5-1.0	1.0-2.0	2.0-3.0	3.0-5.0	>5.0
Salt	g/l	20	20-25	25-40	40-50	50-60	60-80	80-100
Soda ash	g/l	5	5	5	5	5	5	5
NaOH 50 %	ml/l	-	0.6-0.75	0.75-0.9	0.9-1.2	1.2-1.5	1.5-2.0	2
Salt	g/l	20	20-25	25-40	40-50	50-60	60-80	80-100
Soda ash	g/l	5	5-7	7-10	10-13	13-15	15-20	20

For LR 5:1

Dyestuff concentration		<0.1	0.1-0.5	0.5-1.0	1.0-2.0	2.0-3.0	3.0-5.0	>5.0
Salt	g/l	5	5-20	20-25	25-35	35-45	45-60	60-80
Soda ash	g/l	6	6	6	6	6	6	6
NaOH 50 %	ml/l	-	0.7-0.9	0.9-1.1	1.1-1.4	1.4-1.7	1.7-2.5	3.0
Salt	g/l	5	5-20	20-25	25-35	35-45	45-60	60-80
Soda ash	g/l	6	6-8.5	8.5-12	12-16	16-18	18-24	24

On mercerized cotton and viscose

For LR 10:1

Dyestuff concentration		<0.1	0.1-0.5	0.5-1.0	1.0-2.0	2.0-3.0	3.0-5.0	>5.0
Salt	g/l	20	20-25	25-30	30-40	40-50	50-60	60
Soda ash	g/l	3	3-4	4-5	5-7	7-9	9-13	15

For LR 5:1

Dyestuff concentration		<0.1	0.1-0.5	0.5-1.0	1.0-2.0	2.0-3.0	3.0-5.0	>5.0
Salt	g/l	15	15-20	20-25	25-30	30-40	40-50	50
Soda ash	g/l	4	4-5	5-6	6-9	9-11	11-16	18

Please note on outer side of this pocket card the special dyeing recommendation for Remazol® Royal SAM 01

Pad application

Cold Pad Batch (CPB)

Dye liquor

...	g/l	Remazol® SAM dyes
2-4	g/l	Sera® Wet C-ANS
100	g/l	urea (if required to improve solubility

All these CPB methods require the use of a mixing pump

Alkali option 1 (mainly medium - dark shades)

Dyestuff	g/l	0-5	5-10	10-15	15-20	20-30	30-40	40-50	50-60	60-70	70-80	>80
Sodium Silicate 37° Be	ml/l	50	50	50	50	50	50	50	50	50	50	50
Caustic soda 50%	ml/l	11	11	11	11	14	14	14	17	20	20	20

Pad liquor temperature: <20 - 25 °C Fixation temperature: 20 - 35 °C

Alkali option 2 (mainly pale - medium shades)

Dyestuff	g/l	0-5	5-10	10-15	15-20	20-30	30-40	40-50	50-60	60-70	70-80	>80
Sodium Silicate 37° Be	ml/l	50	50	50	50	50	50	50	50	50	50	50
Caustic soda 50%	ml/l	1.5	1.5-2.25	2.25-3.0	3.0-3.75	3.75-5.1	5.1-6.5	6.5-7.9	7.9-9.25	9.25-10.6	10.6-12	12.0

Pad liquor temperature: <20 - 25 °C Fixation temperature: 20 - 35 °C

Alkali option 3 (all depth of shade)

Dyestuff	g/l	0-5	5-10	10-15	15-20	20-30	30-40	40-50	50-60	60-70	70-80	>80
Sodium Silicate 37° Be	ml/l	100	100	100	100	100	100	100	100	100	100	100
Caustic soda 50%	ml/l	4	6	7	7	8	9	10	10	11	11	14

Pad liquor temperature: <20 - 25 °C Fixation temperature: 20 - 40 °C

Pad Dry Pad Steam (PDPS)

Dye liquor

Dye pad

...	g/l	Remazol® SAM dyes
2-4	g/l	Sera® Wet C-ANS
10	g/l	Sera Gel M-IP
5-10	g/l	Sera Con M-LU

Chemical pad

Dye concentrations	g/l	<20	20-40	>40
Caustic soda 50%	ml/l	3	4	6
Soda ash	g/l	20	20	20
Salt	g/l	250	250	250

Pad liquor temperature: 20 - 25 °C
IR pre-drying
Dry at 100-120 °C
Steaming
60 s with saturated steam (101-105 °C)

Pad Steam (PS)

This method requires the use of a mixing pump

Dye liquor

...	g/l	Remazol® SAM dyes
2-4	g/l	Sera® Wet C-ANS
100	g/l	Sera Con M-LU

Alkali liquor*

Dye concentrations	g/l	<15	>15
Soda ash	g/l	10-20	20
Caustic soda 50%	ml/l	*	3-6

Pad liquor temperature: 20 - 25 °C
Steaming
60 - 90 s with saturated steam (101 - 105 °C)

*for deep shades add 50 g/l urea

All fastnesses were evaluated in 1/1 standard depth on bleached, mercerized cotton additionally light fastness was evaluated also in 1/12 standard depth.