

TEXTILE  
SOLUTIONS.

Bezema  
Colour  
Solutions.

**CHT**

SMART CHEMISTRY  
WITH CHARACTER.

## BEMACRON S/SE/E

■ BASIC

DISPERSION DYES FOR  
VERSATILE AND ECONOMICAL  
POLYESTER DYEINGS

# BEMACRON S/SE/E

## Dyes

**B**

### BASIC

Economical standard range, which meets normal requirements.

## DESCRIPTION OF PRODUCT RANGE

### BEMACRON S

Standard dyes, sublimation-fast, with good cost-benefit ratio.

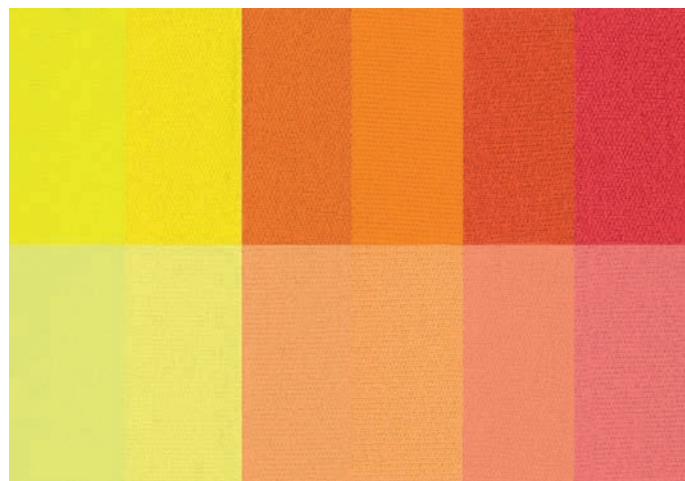
### BEMACRON SE

Easily combinable basic dyes.

### BEMACRON E

Small-molecule dyes with good migration power. Can be dyed in light and medium shades at boiling temperature with a dye accelerator. Very suitable for dyeing PES/WO blends due to the high reduction stability.

Light fastness	3/1 1/1 1/12
Weathering fastness	3/1 1/1 1/12
Washing fastness 60 °C <sup>2)</sup>	CC PES PA CO
Perspiration fastness <sup>2)</sup> alkaline	CC PES PA CO
Chlorine bath water 20 mg/l	CC
Fastness to dry heat fixation 180 °C	Staining PES
Coverage of material variations	
Suitability for blends	PES/CO PES/WO
Dyeing process	HT Carrier Thermosol
AOX <sup>1)</sup>	%
Heavy metal content	



Yellow S-6GF 0.15 % 0.9 %	Yellow S-4G 0.1 % 0.5 %	Yellow Brown S-2RFL 0.2 % 1.2 %	Orange S-G 0.2 % 1.1 %	Scarlet S-GFL 0.2 % 1.3 %	Scarlet S-BWFL 0.2 % 1.4 %
>7 >7 >7	>7 >7 7	7 7 7	6 6 5-6	6-7 6 6	5-6 5 5
- 7 7	- - 7	- 7 7	- - -	- - -	- - -
5 5 4-5 5	4-5 5 5 5	5 5 4-5 5	4-5 5 5 4-5	5 5 4 5	5 5 4-5 5
5 4-5 4-5 4-5	5 5 5 5	5 5 5 5	4-5 5 4-5 5	4-5 5 5 5	5 4-5 4-5 4-5
4-5	5	5	4-5	4-5	4
3-4	4	4	4-5	4	4
●	●	●	●	●	●
● ●	● ●	● ●	● ●	● ●	● ●
● ○ ●	● ○ ●	● ● ●	● ● ●	● ● ●	● ○ ●
free	free	6.3	free	2.2	free
free	free	free	free	free	free

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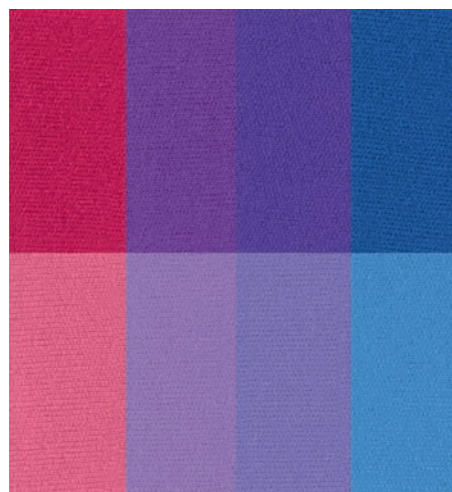
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Coverage of material variations	
Suitability for blends	PES/CO PES/WO
Dyeing process	HT Carrier Thermosol
AOX <sup>1)</sup>	%
Heavy metal content	



Rubine S-2GFL 0.2 % 1.1 %	Violet S-3RL 0.1 % 0.6 %	Violet S-BLF 0.3 % 1.7 %	Blue S-BGL 0.2 % 1.2 %
6-7 6 6	6 5-6 5-5	>7 >7 >7	6-7 6-7 6-7
-	-	- 6-7 6-7	-
5 5 3-4 4-5	5 5 4-5 5	5 5 3-4 5	4-5 4-5 2 4-5
5 5 5 5	5 5 5 5	5 5 5 5	4-5 4-5 4-5 4-5
4	4	5	4-5
4-5	3	4-5	4-5
●	●	●	●
● ●	● ●	● ●	● ●
● ● ●	● ● ●	● ● ●	● ● ●
2.1	free	free	free
free	free	free	free

BEMACRON S Dyes

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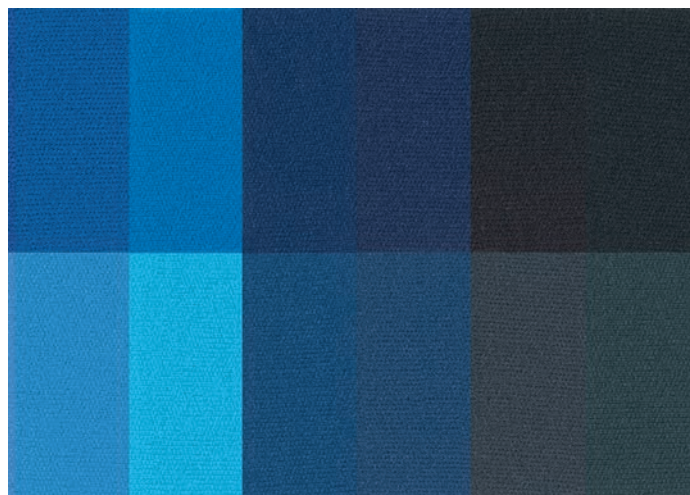
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Perspiration fastness <sup>2)</sup> alkaline	CC PES PA CO
Chlorine bath water 20 mg/l	CC
Fastness to dry heat fixation 180 °C	Staining PES
Coverage of material variations	
Suitability for blends	PES/CO PES/WO
Dyeing process	HT Carrier Thermosol
AOX <sup>1)</sup>	%
Heavy metal content	



Blue S-BB 0.1 % 0.5 %	Turquoise S-GF 0.4 % 4.0 %	Navy S-2GL 0.8 % 1.6 %	Navy S-3L 0.9 % 1.8 %	Black S-3L 1.4 % 4.2 %	Black S-TL 0.9 % 2.7 %
6 6 6	>7 >7 >7	5-6 5 5	7 6-7 6-7	7 6-7 6-7	5-6 5 5
-	- 6-7 6-7	-	7 6-7 -	7 6-7 -	-
4-5 4-5 3-4 4-5	5 5 4 5	5 4-5 2-3 4-5	4-5 5 4 5	5 4-5 3-4 5	4-5 4-5 3-4 4-5
4-5 5 5 5	5 5 5 5	4-5 4-5 4-5 4-5	5 5 4-5 5	5 5 4-5 4-5	5 5 4-5 5
4-5	5	4-5	5	4-5	4-5
4-5	3-4	4-5	4	3-4	4
●	●	●	●	●	○
● ○	● ●	● ○	● ○	● ○	● ○
● ○ ●	● ○ ●	● ○ ●	● ○ ●	● ○ ●	● ○ ●
free	free	1.9	1.1	2.2	3.1
free	free	free	free	free	free

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Perspiration fastness <sup>2)</sup> alkaline	CC PES PA CO
Chlorine bath water 20 mg/l	CC
Fastness to dry heat fixation 180 °C	Staining PES
Coverage of material variations	
Suitability for blends	PES/CO PES/WO
Dyeing process	HT Carrier Thermosol
AOX <sup>1)</sup>	%
Heavy metal content	

Yellow SE-RDL 0.1 % 0.8 %	Yellow SE-LF 0.4 % 2.8 %	Red SE-4G 0.3 % 1.6 %	Red SE-RDL 0.1 % 0.8 %	Pink SE-REL 0.4 % 2.7 %	Red SE-LF 0.55 % 3.4 %
7 7 6-7	5-6 6-7 7	4 4 3-4	5-6 5 5	6 6 >7	7 7 7
-	- 6-7 7	-	-	- 6 7	6-7 6-7 6
4-5 5 4-5 5	5 5 4-5 5	5 4-5 4 4-5	4-5 4-5 3 5	4-5 4-5 2-3 4-5	5 4-5 2-3 4-5
4-5 4-5 3-4 4-5	5 4-5 4-5 5	4-5 5 4-5 5	4-5 5 5 5	5 4-5 4-5 4-5	5 4-5 4 4-5
4-5	5	4-5	4	5	5
3	3	4-5	5	2-3	4-5
●	●	●	●	●	●
● ○	● ●	● ●	● ○	● ●	● ●
● ● ●	● ○ ●	● ○ ●	● ○ ●	● ● ●	● ○ ●
2.1	free	5.4	free	free	free
free	free	free	free	free	free

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Light fastness	3/1 1/1 1/12
Weathering fastness	3/1 1/1 1/12
Washing fastness 60 °C <sup>2)</sup>	CC PES PA CO
Perspiration fastness <sup>2)</sup> alkaline	CC PES PA CO
Chlorine bath water 20 mg/l	CC
Fastness to dry heat fixation 180 °C	Staining PES
Coverage of material variations	
Suitability for blends	PES/CO PES/WO
Dyeing process	HT Carrier Thermosol
AOX <sup>1)</sup>	%
Heavy metal content	



Red SE-3B 0.1 % 0.6 %	Blue SE-LF 0.4 % 2.5 %	Blue SE-RDL 0.2 % 1.2 %	Navy SE-MR <sup>3)</sup> 0.6 % 1.2 %
5 5 5	>7 >7 >7	6 6 6	5-6 5 4-5
-	- 7 7	-	-
5 5 4 5	4-5 5 3-4 5	5 4-5 3 5	5 4 3 4-5
5 5 4-5 5	5 5 5 5	5 5 5 5	5 5 4 5
4-5	5	4-5	5
4	4	4	4-5
●	●	●	●
● ●	● ●	● ●	● ●
● ○ ●	● ○ ●	● ○ ●	● ● ●
free	free	1.9	2.4
free	free	free	free

BEMACRON SE Dyes



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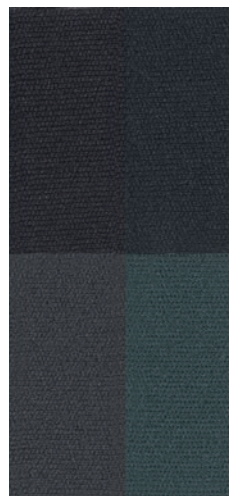
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### BEMACRON E

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Washing fastness 60 °C <sup>2)</sup>	CC PES PA CO
Perspiration fastness <sup>2)</sup> alkaline	CC PES PA CO
Chlorine bath water 20 mg/l	CC
Fastness to dry heat fixation 180 °C	Staining PES
Coverage of material variations	
Suitability for blends	PES/CO PES/WO
Dyeing process	HT Carrier Thermosol
AOX <sup>1)</sup>	%
Heavy metal content	



Black SE-MR <sup>3)</sup> 0.6 % 1.8 %	Black SE-RD2R 0.7 % 2.1 %
5 4 4	5 4 4
-	-
5 4 2-3 4-5	5 4 2-3 4-5
5 4-5 4-5 4-5	5 5 4-5 5
5	4-5
3-4	3
●	●
● ●	● ●
● ● ●	● ○ ●
2.0	2.1
free	free

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Perspiration fastness <sup>2)</sup> alkaline	CC PES PA CO
Chlorine bath water 20 mg/l	CC
Fastness to dry heat fixation 180 °C	Staining PES
Coverage of material variations	
Suitability for blends	PES/CO PES/WO
Dyeing process	HT Carrier Thermosol
AOX <sup>1)</sup>	%
Heavy metal content	

Yellow E-3GL 0.1 % 0.6 %	Red E-FBL 0.3 % 1.6 %	Blue E-FBL 150 0.2 % 1.3 %	Black E-RD 0.9 % 2.7 %
7 7 7	5-6 5-6 6-7	7 7 7	5-6 5 4-5
-	-	- 6 6-7	-
5 4-5 3 4-5	5 4-5 3 4-5	4-5 4-5 2 4-5	4-5 4-5 3 4-5
5 4-5 4-5 5	5 5 5 5	4-5 4-5 4-5 4-5	5 4-5 4-5 5
4-5	5	4-5	5
1	1	2-3	2-3
●	●	●	◐
● ●	● ●	● ●	● ●
● ● ○	● ● ○	● ● ○	● ● ○
free	free	3.8	5.2
free	free	free	free

BEMACRON E Dyes



<sup>1)</sup> Method of determination: DIN EN 1485.

<sup>2)</sup> Post-heat setting 30 s at 180 °C

<sup>3)</sup> This offer is not valid in the following countries:  
Canada, China, Hong Kong, Indonesia, Japan, Taiwan, USA.

The BEMACRON S/SE/E range fully complies with the requirements on the limits for impurities or by-products as specified in the MRSL of ZDHC (current version 1.1, December 2015, refer to [www.roadmaptozero.com](http://www.roadmaptozero.com)).

### Fastness information:

The fastness properties stated on the shade card were determined with 1/1 SD dyeing on polyester. Exceptions are the navy dyes (2/1 SD) and black dyes (3/1 SD). All stated fastness values are based on dyeingst of the individual dyes.

Light fastness	DIN EN ISO 105-B02
Weathering fastness	DIN EN ISO 105-B04
Washing fastness 60 °C	DIN EN ISO 105-C06/C2S
Perspiration fastness	DIN EN ISO 105-E04
Chlorine bath water fastness	DIN EN ISO 105-E03
Fastness to dry heat fixation	DIN EN ISO 105-P01

### Coverage of material variations:

- These dyes cover fabric-related stripes very effectively.
- ◐ Depending on the shade and colour intensity, these dyes cannot cover texture differences and other fabric-related variations completely.
- These dyes cannot compensate for differences in the fabric.

### Suitability for blends:

- Suitable
- ◐ Suitable with restrictions
- Not suitable

### Dyeing process:

HT	High-temperature process (130 °C)
Carrier	Dyeing process at 98 – 110 °C with the addition of carriers
Thermosol	Continuous process

- Recommended
- ◐ Recommended in some cases
- Not recommended

The fastness properties of the dyed shades shown on the shade card on polyester correspond to 1/1 and 1/6 SD. Exceptions are the navy dyes (1/1 und 2/1 SD) and black dyes (1/1 and 3/1 SD).

The appearance of dyes can vary due to different manufacturing methods. However, this does not affect the colour on the textile or the dye properties and fastnesses. The colour intensity is normally set to 100 %. Deviations are listed in the current "commercial forms" leaflet.

The data contained in this shade card is given to the best of our knowledge and belief. It does not guarantee specific product properties. All information is subject to change without notice.

01/2018\_en

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