



# TIMEBOOST PROCESS

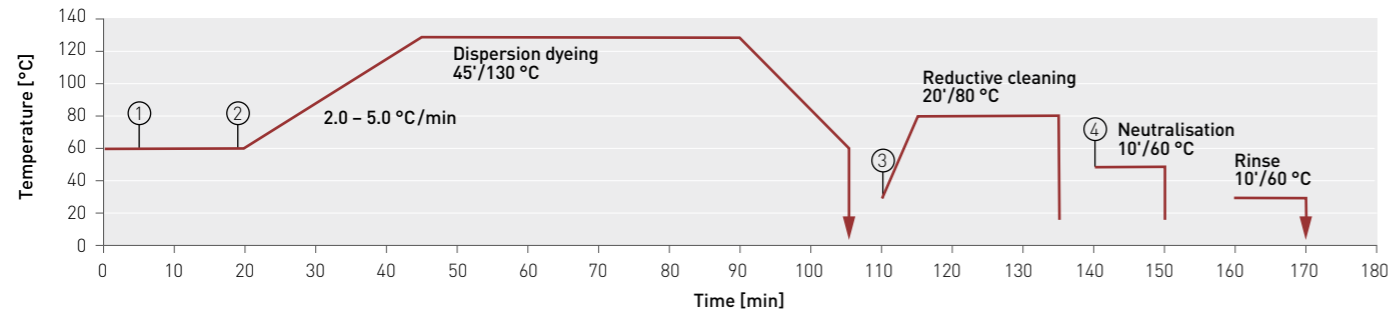
HIGH END levelness with BEMACRON RS dyes  
and CHT auxiliary system

**CHT**  
SMART CHEMISTRY  
WITH CHARACTER.

## TIMEBOOST PROCESS

The products of the CHT brand Bezema Colour Solutions provide you with optimal combinations of dyes and auxiliaries which help you achieve safe and perfect results.

### PES HT Dyeing 5°C/min – Application recommendation – LR 1:7



|   |                               |          |
|---|-------------------------------|----------|
| 1 | BIAVIN BPA                    | 1.0%     |
|   | EGASOL UP                     | 1.0–2.0% |
|   | NEUTRACID BO 45<br>pH 4.0–5.0 | 2.0%     |
| 2 | CHT-Dispergator XHT-S         | 1.0–2.0% |
|   | BEMACRON RS dye               | x        |
| 3 | INTENSOL OLI                  | 1.0–2.0% |
|   | NaOH 50 °Bé                   | 2.0–4.0% |
|   | REDULIT GIN                   | 2.0–4.0% |
| 4 | NEUTRACID BO 45               | 0.5–1.0% |

#### CHT-DISPERGATOR XHT-S or CHT-DISPERGATOR XHT-S + EGASOL UP

##### Savings

- ▶ No prewashing is needed
- ▶ Reduced process by 30 min

##### Significantly shortened heating time

- ▶ From 60 °C to 130 °C with 2.0 °C/min (up to 5 °C/min possible depending on fabric and machinery)
- ▶ Reduced process by 1 h

##### Shorter migration time

- ▶ From 60 min to 45 min or from 45 min to 30 min process shortening by 15 min

##### Total time saving

- ▶ 1 h 45 min

Levelling agents for rapid dyeings by reduced heating time on PES and its blends at HT conditions especially on jet, but also on other machines and apparatuses.

## CHT-DISPERGATOR XHT-S PES DISPERSING/ LEVELLING AGENT

### Polyglycol ether derivate n/a, liquid

#### Application fields

Problem solver for stains in PES dyeings. The stabilisation of the dispersion, particularly at high turbulences, can be enormously improved by CHT-DISPERGATOR XHT-S.

CHT-DISPERGATOR XHT-S can be applied on all common dyeing apparatuses and machines used in practice for dyeing polyester.

CHT-DISPERGATOR XHT-S can be applied for dyeing PES in the automotive field as the light fastness is not affected.

In many cases CHT-DISPERGATOR XHT-S is applied alone as dispersing and levelling agent. A deaerator like KOLLASOL CDS should be added in advance.

#### Properties

CHT-DISPERGATOR XHT-S does not contain any antifoaming agent. It has a very good dispersing and levelling power. Due to the maximal fine dispersion the dyes have a still higher dissolving speed than conventional products.

The oil dispersion of CHT-DISPERGATOR XHT-S in the dyeing bath is exceptionally high.

## EGASOL UP PES LEVELLING AGENT

**Fatty acid ethoxylates and aromatic carboxylic acid esters a, liquid**

#### Application fields

Problem solver in case of streakiness on PES dyeings. For PES woven fabrics on jet, critical colours like green, olive, brown. Advantageous in combination with a dispersing agent like CHT-DISPERGATOR XHT-S.

- ▶ For heavy articles with a high sqm weight, microfibre article, Trevira CS
- ▶ In the automotive field with quantities of 1–2%
- ▶ For levelling out of dyeings with 3% EGASOL UP

#### Properties

As EGASOL UP has an affinity to fibres, it has to be separately added to the dyeing bath in emulsified form at 50–60 °C before the dye.

EGASOL UP has an excellent synchronising effect on dispersion dyes.

A very good colour levelness is obtained because of the excellent levelling and migration power of EGASOL UP.



The CHT auxiliary system is bluesign® approved.

## BEMACRON RS PES DISPERSION DYES

**Universally applicable and economic rapid-dyeing range with high colour build-up capacity.**

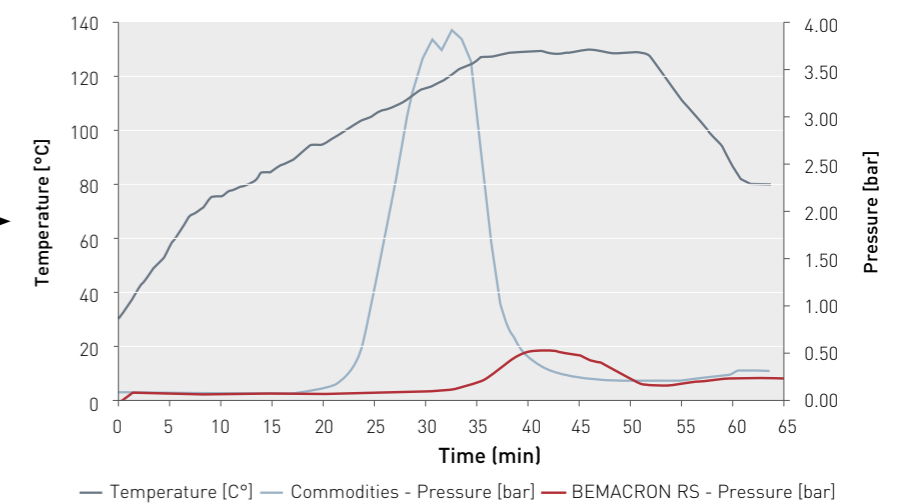
#### BEMACRON RS = Rapid & Safe

- ▶ For exhaust and continuous procedures
- ▶ Excellent dispersion stability, also under most difficult conditions (packaging apparatus & beam)
- ▶ Excellent "rapid dyeing" properties
- ▶ All dyes are perfectly combinable
- ▶ Excellent levelling power
- ▶ Excellent migration power
- ▶ Very high reproducibility
- ▶ Good dry heat fixing fastnesses
- ▶ Dyeing at 120 °C also possible (Diagram)





















#### Verification of the dispersion stability by means of the HPX test



Differential pressure measuring (I > A)



# BEMACRON RS DYES

|                  |        |        |  |   |
|------------------|--------|--------|--|---|
| Yellow RS        | 0,15 % | 0,75 % |    |    |
| Golden Yellow RS | 0,10 % | 0,55 % |    |    |
| Golden Orange RS | 0,24 % | 1,40 % |    |    |
| Red RS           | 0,15 % | 0,85 % |    |    |
| Carmine RS       | 0,15 % | 0,85 % |    |    |
| Rubine RS        | 0,10 % | 0,60 % |    |    |
| Royal RS         | 0,15 % | 0,80 % |    |    |
| Blue RS          | 0,20 % | 1,15 % |    |    |
| Navy RS          | 0,75 % | 1,50 % |   |   |
| Black RS         | 1,30 % | 3,90 % |  |  |

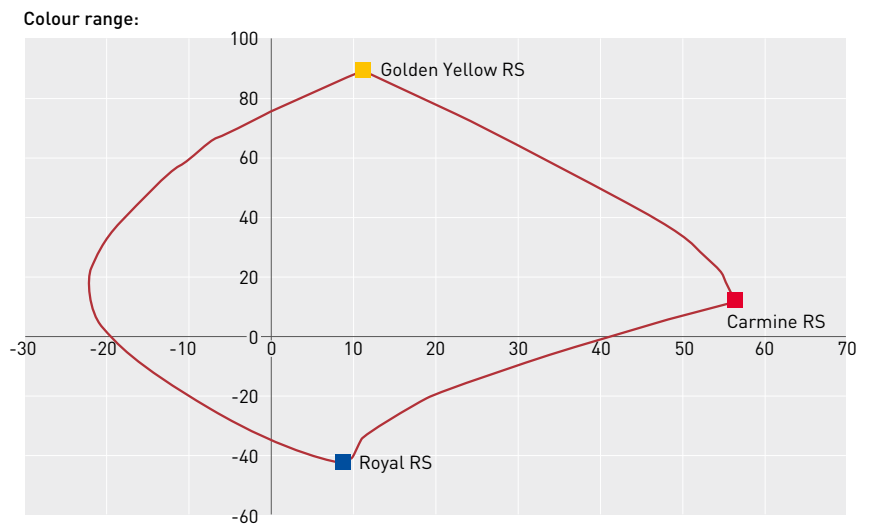
## ECONOMIC BEMACRON RS TERNARY

### BEMACRON Golden Yellow RS/Carmine RS/ Royal RS:

Colour intensive rapid-dyeing dyes with excellent dispersion stability and a very good colour build-up already at a dyeing temperature of 120 °C. Very good levelling dyeing power. High fastnesses to light, washing and chlorine.



The dyes of BEMACRON RS ternary range are bluesign® approved.



**CHT**  
SMART CHEMISTRY  
WITH CHARACTER.