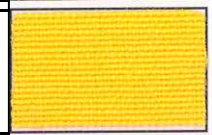
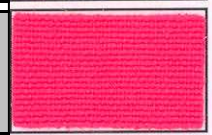
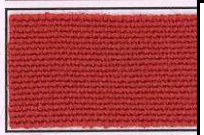
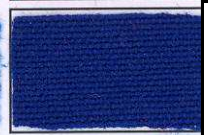
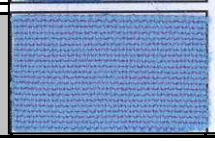
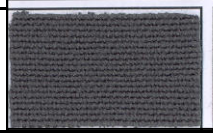
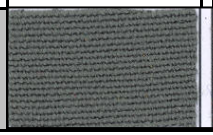
Tecocryl	0.2%	1%	C.I. Basic	K-Wert K value f-Wert f value	Xenonlicht Xenon lamp 1/12 RTT / SD 1/1 RTT / SD	Dämpfen Steaming 10 min 115 °C		Schweiss Perspiration alk./alk.				Wäsche Washing 60 °C			
						1/12	1/1	N	PAN	WO	CV	N	PAN	WO	CV
Gelb 8GL 200% Yellow 8GL 200%			Y 13	3.5 0.48	5 6	4-5	4-5	5	5	4-5	5	4-5	5	5	5
Goldgelb GL 200% Golden Yellow GL 200%			Y 28	3 0.48	5-6 6-7	5	4-5	5	5	5	5	5	5	5	5
Brillantrot 4G Brilliant Red 4G			R 14	3 0.56	3 4	5	5	4-5	5	5	5	4-5	5	5	5
Rot 2G 250% Red 2G 250%			R 18	2.5 0.74	6 6-7	5	5	4-5	5	4-5	4-5	5	5	5	5
Rot GRL 200% Red GRL 200%			R 46	3 0.77	6 7	4-5	5	5	5	5	5	5	5	5	5
Blau GRL 300% Blue GRL 300%			B 41	3 0.66	5-6 6-7	3-4	4-5	5	5	5	5	4-5	5	5	5
Blau 5G 200% Blue 5G 200%			B 3	3.5 0.62	4 5	4-5	4-5	5	5	4-5	4-5	4-5	5	5	5

Tecocryl	0.5%	1.5%	C.I. Basic	K-Wert K value f-Wert f value	Xenonlicht Xenon lamp 1/12 RTT / SD 1/1 RTT / SD	Dämpfen Steaming 10 min 115 °C 1/12	 1/1	Schweiss Perspiration alk./alk. N	 PAN	 WO	 CV	Wäsche Washing 60 °C N	 PAN	 WO	 CV
Marineblau 2RN **Navy 2RN**			**B Mix**	**3.5** **0.65**	**-** **5-6**	**-**	**5**	**5**	**5**	**4-5**	**4-5**	**4-5**	**5**	**4-5**	**4-5**
Schwarz FBL 300% **Black FBL 300%**			**Blk Mix**	**3** **0.9**	**5-6** **6-7**	**3-4**	**4**	**5**	**4-5**	**4-5**	**4-5**	**5**	**5**	**4-5**	**4-5**

Tecocryl	1.5%	4.5%	C.I. Basic	K-Wert K value f-Wert f value	Xenonlicht Xenon lamp 1/12 RTT / SD 1/1 RTT / SD	Dämpfen Steaming 10 min 115 °C 1/12	 1/1	Schweiss Perspiration alk./alk. N	 PAN	 WO	 CV	Wäsche Washing 60 °C N	 PAN	 WO	 CV
Schwarz KOM flüssig **Black KOM liquid**			**Blk Mix**	**3** **0.3**	**5-6** **6**	**3-4**	**4**	**5**	**4-5**	**4-5**	**4-5**	**5**	**5**	**4-5**	**4-5**

Tecocryl dyes are cationic dyes for dyeing acrylic fibres in all kinds of processing as well as acrylic fibre blends with natural or other synthetic fibres. Most of these dyes are also suitable for dyeing modified polyamide and polyester.

Explanations to the illustration sheet

In the column „C.I. Basic“ the colour index number is given for every single dye.

K value

The K value indicates the behaviour of a cationic dye in combination with others.
Dyes with a lower K value exhaust more rapidly in combination than such with a higher K value. As far as possible dyes with similar K values (+/-0.5) should be combined together. This provides an uniform absorption of the dye combination and therewith a good levelness.

f value

The f value stands for the fibre independent saturation value of a cationic dye.

In a given dye combination the concentration of each dye is multiplied by its f value and the results are added up.

If this total exceeds the saturation value (SF) of the acrylic fibre to be dyed, the fibre becomes oversaturated. An oversaturation should be avoided because it may negatively affect the dyeing result.

Key to the fastness

Light (Xenon lamp) ISO 105 – B02	Washing 60 °C ISO 105 – C03
Steaming ISO 105 – P02	Perspiration ISO 105 – E04

N	=	change of shade
PAN	=	staining of polyacrylnitrile
WO	=	staining of wool
CV	=	staining of viscose

Remarks

In the light and the steaming fastness the figures refer to the specified standard depth (1/12 resp. 1/1 SD).
The perspiration and wash fastness were tested in 1/1 SD, navy and black in 2x1/1 SD.

Dyeing process

To define the optimal dyeing process it is recommended to consider the respective fibre characteristics (fibre saturation value, rate of strike) and dyestuff characteristics (K and f values).
In order to achieve level dyeings usually cationic retarding agents are used for dyeing. These retarding agents exhaust more rapidly during the heating up phase than the dyestuffs and delay their exhaustion.

Dissolving Tecorcyl dyes

The Tecocryl dyes are pasted with the same amount of acetic acid 40 % and then dissolved by adding about 20 – 40 times their weight of boiling water.

Standard exhaust procedure with retarding agent

Set bath at 60 – 80 °C (depending on the type of fibre) with:

- 5 – 10 % Glauber`s salt calc.
  0.5 – 2 g/l Alviron W
- adjust to pH 4 – 5 with TC-Ökostabil 100*
- after complete distribution of these products add:
  0.5 – 3 % TC-Retard PAN *or*
  1.5 – 4 % TC-Retard KMLB and the already dissolved dyestuffs
- run for 5 - 10 min
- heat up to boiling temperature (max. up to 105 °C) at 0.5 – 1 °C/min
- dye for 30 – 45 min at the dyeing temperature
- cool down slowly to 60 – 70 °C
- drain bath

*instead of TC-Ökostabil 100, sodium acetate (0 – 3 %) and acetic acid can also be used for adjusting the pH value.

Recommended chemicals

Alviron W	Nonionic levelling agent for cationic dyestuffs, prevents furthermore precipitations when dyeing with anionic and cationic products
TC-Ökostabil 100	Non-volatile buffer system to assure a stable pH value in various fields of application
TC-Retard PAN	Cationic, *permanent* retarding agent for dyeing acrylic fibres with cationic dyestuffs, low foaming
TC-Retard KMLB	Cationic, *temporary* retarding agent for dyeing acrylic fibres with cationic dyestuffs, low foaming