











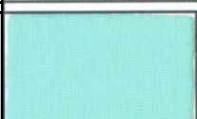
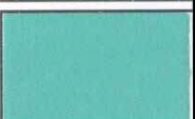

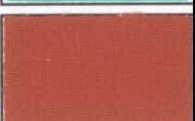


Tecofix	0.5%	2%	C.I. Reactive	Xenonlicht Xenon lamp 1/1 RTT/SD	Wäsche Washing 60 °C			Schweiss Perspiration						Chlorbadewasser Chlorinated bath water 20 mg/l	KKV Cold pad batch	Ätzbarkeit Discharge- ability
					N	CO	WO	acidic/sauer			alk./alk.					
					N	CO	WO	N	CO	WO	N	CO	WO			
Brillantgelb VS-4GL Brilliant Yellow VS-4GL			Y 160 s	4-5	5	5	4-5	5	4-5	5	5	4-5	5	3-4	(+)	▲
Brillantgelb VS-GL Brilliant Yellow VS-GL			Y 37	6-7	4-5	5	5	5	5	5	5	5	5	3-4	+	●
Gelb VS-GR Yellow VS-GR			Y 15	5-6	5	5	5	5	4-5	5	5	4-5	4-5	2-3	+	●
Goldgelb VS-RL Golden Yellow VS-RL			O 107	5	5	4-5	4-5	5	4-5	5	5	4-5	5	3	+	●
Brillantorange VS-3R Brilliant Orange VS-3R			O 16	5	5	5	5	5	4-5	4-5	5	5	4-5	3-4	+	●
Brillantrot VS-2B 150% Brilliant Red VS-2B 150%			R 21	4-5	5	4-5	5	4-5	5	5	4-5	5	4-5	2	+	●
Brillantrot VS-3B 140% Brilliant Red VS-3B 140%			R 239	4-5	5	4-5	4-5	5	4-5	4-5	5	4-5	4-5	4-5	+	▲
Rot VS-RB Red VS-RB			R 198	4-5	5	5	4-5	5	4-5	5	5	4-5	4-5	3-4	+	○

Tecofix	0.5%	2%	C.I. Reactive	Xenonlicht Xenon lamp 1/1 RTT/SD	Wäsche Washing 60 °C			Schweiss Perspiration						Chlorbadewasser Chlorinated bath water 20 mg/l	KKV Cold pad batch	Ätzbarkeit Discharge- ability
					N	CO	WO	acidic/sauer			alk./alk.					
					N	CO	WO	N	CO	WO	N	CO	WO			
Bordeaux VS-B Bordeaux VS-B			R 49	6-7	4-5	4-5	4-5	4	4-5	4-5	3-4	4-5	4-5	4	+	▲
Brillantviolett VS-5R Brilliant Violet VS-5R			V 5	6-7	5	5	4-5	4-5	4-5	5	4	4-5	5	4-5	+	▲
Blau VS-3R Blue VS-3R			B 28	6	5	5	5	4	4-5	5	3-4	4-5	5	3	+	○
Brillantblau VS-R 110% Brilliant Blue VS-R 110%			B 19	7	5	5	4-5	5	5	5	5	5	5	4	(+)	▲
Brillantblau VS-BB Brilliant Blue VS-BB			B 220	6-7	4-5	5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	+	●
Türkis VS-G Turquoise VS-G			B 21	6	4-5	4-5	4-5	4-5	4-5	5	4-5	4-5	5	2-3	+	○
Brillantgrün VS-6B Brilliant Green VS-6B			B 38	7	5	4-5	4	4-5	4-5	4-5	5	4-5	5	3-4	+	▲
Braun VS-GRN Brown VS-GRN			BR 18	5-6	4	4-5	4	4-5	5	5	4	4-5	5	2	+	○

Tecofix	2%	4%	C.I. Reactive	Xenonlicht Xenon lamp 1/1 RTT/SD	Wäsche Washing 60 °C			Schweiss Perspiration						Chlorbadewasser Chlorinated bath water 20 mg/l	KKV Cold pad batch	Ätzbarkeit Discharge- ability
					N	CO	WO	acidic/sauer			alk./alk.					
					N	CO	WO	N	CO	WO	N	CO	WO			
Dunkelblau VS-2R Dark Blue VS-2R			B 89	5-6	5	4	4	4-5	4-5	5	4-5	4	4-5	2	+	○
Schwarz VS-B 133% Black VS-B 133%			Blk 5	4-5	5	4-5	4	4-5	4	4-5	4-5	4-5	5	3	+	●
Schwarz VS-GR 115% Black VS-GR 115%			Blk Mix	4-5	5	4-5	4	4-5	4-5	5	4	4-5	4-5	2-3	+	▲
Schwarz VS-T 150% Black VS-T 150%			Blk Mix	4-5	5	5	4-5	5	5	5	4-5	4-5	4-5	3	+	●
Schwarz VS-C Black VS-C			Blk Mix	4-5	5	5	4-5	5	5	4-5	4-5	4-5	4-5	3	+	●

Tecofix VS dyestuffs are reactive dyestuffs of the vinyl sulphone type. They are suitable for dyeing all cellulose fibres by the exhaust and padding method. Most Tecofix VS dyestuffs are white dischargeable (see shade card).

Explanation of the fastness

N = change of shade
CO = staining of cotton
WO = staining of wool

Light fastness ISO 105 – B02	Washing 60 °C ISO 105 - C06
Perspiration fastness ISO 105 – E04	Chlorinated bath water ISO – E03
Mergerising ISO 105 – X04	

The fastness tests were carried out on dyeings at 1/1 standard depth of shade.

Legend

Cold pad batch suitability	dischargeability
+ very good	● dischargeable
(+) limited	○ still dischargeable
	▲ not dischargeable

Information about the dyeing temperature

40 °C: Preferably for cotton, which is not mercerised, in medium to dark shades.

The following dyestuffs are not suitable:

Tecofix Brilliant Yellow VS-4GL Tecofix Red VS-3B 140 %
Tecofix Turquoise VS-G Tecofix Green VS-6B

60 °C: Preferably for all articles made from regenerated cellulose fibres as well as for mercerised cotton in light shades (best possible levelness).
All Tecofix VS dyestuffs are suitable.

80 °C: Especially suitable for Tecofix Turquoise VS-G and Tecofix Brilliant Green VS-6B in combination with Tecofix Brilliant Yellow VS-4GL (best possible dyestuff yield and reproducibility)

Exhaust method Liquor ratio 1:10				
additions in g/l	depth of shade			
	up to 0.5 %	0.5 – 1.0 %	1.0 – 3.0 %	above 3.0 %
dyeing temperature 40 °C				
TC-Fix and Wash RF*	1.0 – 2.0	2.0 – 2.5	2.5 – 3.5	4.0 ¹
Glauber's salt calc.	20 – 30	30 – 40	40 – 60	60 – 80
dyeing temperature 60 °C				
TC-Fix and Wash RF*	1.0 – 1.5	1.5 – 2.0	2.0 – 3.0	3.0 – 4.0 ¹
Glauber's salt calc.	20 – 30	30 – 40	40 – 60	60 – 80
dyeing temperature 80 °C				
TC-Fix and Wash RF*	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 4.0
Glauber's salt calc.	20 – 30	30 – 40	40 – 60	60 – 80

* pay attention to the indications on the technical data sheet

¹with very deep shades the TC-Fix and Wash RF amount may be increased to 7 g/l

Procedure

Set bath at 20 – 25 °C

Put salt and 1/3 of the TC-Fix and Wash RF amount first

Add 0.5 to 2.0 g/l Alviron GBU
0.5 to 2.0 g/l Alviron FLD
0.5 to 2.0 g/l Alviron VKS

Run for 5 min

Add the dissolved dyestuff within 15 to 20 min

Run for 10 minutes

Heat up to dyeing temperature at 1.0 °C/min

Run for 10 to 15 min

Add the remaining TC-Fix and Wash RF amount within 15 to 20 min

Run for 30 to 45 min

Rinse with overflow, cold and warm, acidify

In order to achieve an optimal fastness on the dyeings, they have to be rinsed thoroughly and aftersoaped with TC-Fix and Wash RF at temperatures between 90 °C and 95 °C. Rinse and neutralise after soaping.

Recommended chemicals

Alviron GBU

Multifunctional special product for pretreatment, bleaching and dyeing. Anionic

Alviron FLD

Skin-friendly, environmentally compatible special product for pre-treatment, bleaching and dyeing. Anionic

Alviron VKS

Deaerating and foam suppressing agent for textile wet finishing processes. Nonionic

TC-Fix and Wash RF

Special product for fixing and soaping of reactive dyestuffs. Not surface active

The information submitted in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application, this data does not relieve processors from the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.

Cold Pad Batch Method

Dyestuff solution

X	g/l	dyestuff
3 - 8	g/l	Alviron FLD
1 - 3	g/l	TC-Schnellnetzer KE

Alkali solution

see table on the right

Standard formula (sodium hydroxide solution)

addition in g resp. ml/l	dyestuff amount in g/l					
	up to 20	20 - 30	30 - 40	40 - 50	50 - 60	> 60
Soda ash	30	30	30	30	30	30
NaOH 38 °Bé	10 - 12	12 - 14	14 - 16	16 - 18	18 - 20	20 - 26

Preparation of the padding liquor

Dyestuff and alkali solution are prepared separately and are added over dosing pumps to the padding trough

A ratio of dyestuff solution to alkali solution of 4:1 is of advantage

Temperature of the padding liquor: 20 – 25 °C. Data in ml/l and g/l are referring to the total volume of the padding liquor

The durability of the padding liquor varies depending on the dyestuff and padding liquor formulation

Batching time: 4 – 24 hours

Sodium silicate formula

Sodium hydroxide solution 38 °Bé depending on the dyestuff amount:

addition in ml/l	dyestuff amount in g/l					
	up to 20	20 - 30	30 - 40	40 - 50	50 - 60	> 60
Sodium silicate 38 °Bé	95	95	95	95	95	95
NaOH 38 °Bé	23	26	29	32.5	35.5	35.5 - 40

Influence of the sodium silicate quality on the application amount

sodium silicate quality in °Bé	required sodium silicate amount in ml/l	
	sodium silicate formula	mod. sodium silicate formula
37 – 40	95	50
40 – 42	80	40
48 – 50	65	35
58 – 60	55	30

Modified sodium silicate formula

Sodium hydroxide solution 38 °Bé depending on the dyestuff amount:

addition in ml/l	dyestuff amount in g/l					
	up to 20	20 - 30	30 - 40	40 - 50	50 - 60	> 60
Sodium silicate 38 °Bé	50	50	50	50	50	50
NaOH 38 °Bé	20	22	25	28.5	31	31 - 35

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