






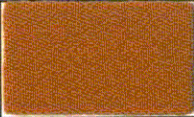





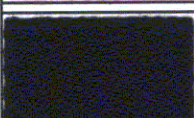


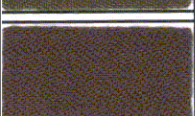





Tecolan	0.5%	2%	C.I. Acid	Xenonlicht Xenon lamp 1/1 RTT/SD 1/12 RTT/SD	Wäsche Washing 40 °C			Walke Milling streng/severe			Schweiss Perspiration alkal./alkal.			Schweiss Perspiration sauer/acid			Wasser Water streng/severe			Heisswasser Hot water 70 °C		
					N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO
Gelb 2GL 250% Yellow 2GL 250%			Y 59	6-7 6	4-5	4	4-5	4	3	4	5	4	4-5	5	4	4-5	5	4	4-5	4-5	3-4	4-5
Bordeaux GT Bordeaux GT			R 213	7 6	5	4-5	4	4	3	4-5	5	4	4	5	4	4-5	5	4-5	4-5	5	3-4	4-5
Grau BL Grey BL			Blk 60	6-7 5	5	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5

Tecolan	0.5%	2%	C.I. Acid	Xenonlicht Xenon lamp 1/1 RTT/SD 1/12 RTT/SD	Wäsche Washing 40 °C			Walke Milling streng/severe			Schweiss Perspiration alkal./alkal.			Schweiss Perspiration sauer/acid			Wasser Water streng/severe			Heisswasser Hot water 70 °C		
					N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO
Gelb S-2G Yellow S-2G			Y 220	7 6-7	5	5	5	4-5	4-5	5	4-5	4-5	5	5	4-5	5	4-5	4-5	5	4-5	4-5	5
Rot S-GR Red S-GR			R 315	6 4	4-5	4-5	5	4-5	4-5	5	4-5	4-5	5	4-5	5	5	4-5	4-5	5	4-5	4-5	5
Bordeaux S-BL Bordeaux S-BL			R405	5 3-4	5	5	5	4-5	4	4-5	4-5	4-5	4-5	5	4-5	5	5	4-5	5	5	4-5	5
Marineblau S-G 150% Navy S-G 150%			BI 317	6-7 5-6	4-5	4-5	5	4-5	4	5	4-5	4-5	5	4-5	4-5	5	4-5	4-5	5	5	4-5	5
Oliv S-GL Olive S-GL			Gr 73	6 5	5	4-5	5	4-5	4-5	5	5	4-5	4-5	5	4-5	5	4-5	4-5	5	5	4-5	5
Braun S-GL 150% Brown S-GL 150%			Br 282	7 6	5	4-5	5	4-5	4-5	5	4-5	4-5	5	4-5	4-5	5	5	4-5	5	4-5	4-5	5

Tecolan	2%	4%	C.I. Acid	Xenonlicht Xenon lamp Schwarz Black	Wäsche Washing 40 °C			Walke Milling streng/severe			Schweiss Perspiration alkal./alkal.			Schweiss Perspiration sauer/acid			Wasser Water streng/severe			Heisswasser Hot water 70 °C		
					N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO
Schwarz S-BGL 200% Black S-BGL 200%			Blk 107	7	5	4-5	4-5	4-5	3	4-5	5	4-5	4-5	5	4-5	4-5	5	4-5	5	4-5	4-5	5

Tecolan	0.5%	2%	C.I. Acid	Xenonlicht Xenon lamp 1/1 RTT/SD 1/12 RTT/SD	Wäsche Washing 40 °C			Walke Milling streng/severe			Schweiss Perspiration alkal./alkal.			Schweiss Perspiration sauer/acid			Wasser Water streng/severe			Heisswasser Hot water 70 °C		
					N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO
Gelb M-3R Yellow M-3R			Y 194	6-7 6	5	4-5	5	4-5	3	4-5	5	4	4-5	5	4	4	5	4-5	5	5	4-5	5
Orange M-R Orange M-R			O 142	6-7 6	5	4-5	5	4-5	3-4	5	5	4-5	5	5	4-5	5	5	4-5	5	4-5	4-5	5
Rot M-3G Red M-3G			R 357	6-7 5	5	4-5	5	4-5	2-3	5	5	4	4-5	5	4-5	5	5	4-5	5	4-5	4	4-5
Bordeaux M-5BL Bordeaux M-5BL			V 90	5 4-5	5	4-5	5	4-5	4	5	5	4-5	4-5	5	4-5	5	5	4-5	5	5	4	5
Braun M-B Brown M-B			Br 355	6-7 6	5	4-5	5	5	4	5	5	4-5	5	5	4-5	5	5	4-5	5	5	4-5	5

Tecolan	2%	4%	C.I. Acid	Xenonlicht Xenon lamp Mar.bl./Navy Schw./Bik.	Wäsche Washing 40 °C			Walke Milling streng/severe			Schweiss Perspiration alkal./alkal.			Schweiss Perspiration sauer/acid			Wasser Water streng/severe			Heisswasser Hot water 70 °C		
					N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO	N	WO	CO
Marineblau M-BR Navy M-BR			BI 193	6	5	4-5	5	5	4	4-5	5	4-5	5	5	4-5	5	5	4-5	5	4-5	4	5
Schwarz M-R 150% Black M-R 150%			Bik 194	6-7	5	4-5	4-5	4-5	3	4-5	4-5	4-5	5	5	4-5	5	5	4-5	5	4-5	4	5

**Tecolan** dyes are 1:2 metal complex dyes with different chemical modifications. The range is divided into the following four groups:

**Tecolan:** sulphonic group free 1:2 metal complex dyes

**Tecolan S:** monosulphonated 1:2 metal complex dyes

**Tecolan M:** bisulphonated 1:2 metal complex dyes

**Tecolan E:** Special range containing 1:2 metal complex dyes as well in the dyestuff formulations. For illustration sheets with information text specially made for this dyestuff group see chapter 8. Therefore, the following information is not valid for the Tecolan E dyes.

#### Properties

Tecolan dyes are applied from weakly acidic to neutral dye baths. They show very good build-up properties and achieve high colour fastness to manufacturing processes and colour fastness to conditions of use.

#### Fields of application

Tecolan dyes are suitable for dyeing wool in all processing stages, for silk and polyamide fibres as well as their portion in fibre blends.

#### Explanation to the fastness

Light fastness: ISO 105 B02	N = Change of shade
Wash fastness 40 °C: ISO 105 C01	WO = staining on wool
Fastness to perspiration: ISO 105 E04	CO = staining on cotton
Fastness to milling, alkaline heavy: ISO 105 E12	
Fastness to water, heavy: ISO 105 E01	
Fastness to hot water: ISO 105 E08	

#### *Remarks to the determination of the fastness*

The fastness ratings regarding light fastness refer to the mentioned standard depths (1/12 or 1/1 RTT). The wet fastness was tested in 1/1 RTT, for navy and black in 2 x 1/1 RTT.

#### Recommended chemicals

Alviron P 96	anionic levelling agent for dyeing wool and polyamide
TC-Ökostabil 100	low-volatile buffering system to guarantee a stable pH value in various fields of application
Alviron VKS	Deaerating and foam suppressing agent for textile wet finishing processes
Sevofix P 2000	Aftertreating agent on polyamide and wool fibres in order to achieve very high wet and wash fastness

#### Dyeing process

##### Dissolving the dyes

Tecolan dyes are moistened with warm, soft water and then boiling water is poured over under stirring.

##### Standard process

##### Pretreatment

Carefully precleaned goods to be dyed are necessary to receive flawless dyeing results. Fats, lubricants, preparation residues etc. may lead to unevenness, stains and bad fastness properties.

##### Dyeing wool

- start bath at 50 °C with 1 g/l Alviron P 96, adjust the pH value from 4.5 to 6 with TC-Ökostabil 100 or acetic acid 80 % (for pale dyeings the higher pH value, for deeper shades the lower pH value).

After mixing well add the dissolved dyes through a sieve or a filter

- run for 5 – 10 min
- heat at 1 – 2 °C/min up to 98 to 105 °C (depending on the depth of the shade, material properties and dyeing machines)
- leave for 20 – 60 min at the dyeing temperature
- cool down to approx. 70 °C
- drain bath and rinse cold

*Remark:* When dyeing loose material, combed tops or yarn it is important to deaerate the material before dyeing. This can be achieved with Alviron VKS, which has to be added first to the dyeing bath.

##### Dyeing polyamide

Polyamide is dyed as well in a weakly acidic bath. It is sufficient to start the dyebath with 1 - 3 % ammonium sulfate. With materials, which do not exhaust well, and with deep dyeings an optimal bath exhaustion is achieved with an addition of 0.5 – 1 % acetic acid 80 %.

With polyamide 6.6 the dyeing temperature can be increased to 120 °C, as long as the equipment allows these conditions.

If necessary, the wet fastness of the Tecolan dyes can be improved by an aftertreatment with Sevofix P 2000.

The information submitted are based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do 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. This edition replaces all previous recommendations and information.