



# PRODUCT OVERVIEW FOR TEXTILE AUXILIARIES

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21 SEQUESTERING AGENTS

# LUBRICANTS

PRODUC	Т	CHEMISTRY	CHARACTERISTICS	APPLICATION
CELLANA I	RV			
Ionicity Substrate	anionic/ non-ionic wool, cashmere	combination of ethoxylate derivates and a selection of antistatic products	free of mineral oils, well- balanced lubricity, cohesion and antistatic properties, non-yellowing	carded and semi-worsted yarn spinning of wool, cashmere and their blends
CELLANA I	PRS			
lonicity Substrate	anionic wool, cashmere	combination of fatty acid derivates	free of mineral oils, well- balanced lubricity, cohesion and antistatic properties, non-yellowing	carded and semi-worsted yarn spinning of cashmere and its blends with natural and synthetic fibres
CELLANA	VAW			
lonicity Substrate	non-ionic wool	hydrocarbons and fatty alcohol ethoxylates	contains mineral oils, imparts excellent lubricity, dust-binding, non-yellowing, corrosion-inhibiting	carded and semi-worsted yarn spinning, specifically for coarse wool and natural fibres
FLEROL KF	N conc			
lonicity Substrate	non-ionic all	polyglycol ether and fatty acid ethoxylates	free of mineral oils, low fibre/metal friction, very good lubricity and antistatic properties, non-yellowing,	worsted and semi-worsted yarn spinning, for all fibre types
			corrosion-inhibiting, readily removable by washing	
FLEROL KF	=c			
lonicity Substrate	non-ionic all	bluesign Eco logic!	free of mineral oils, high dynamic lubricity, low interfibre cohesion, good antistatic properties, highly concentrated, readily removable by washing	worsted and semi-worsted yarn spinning, for all fibre types
FLEROL FN	IE			
Ionicity Substrate	anionic wool	combination of fatty acid derivates	free of mineral oils, very good antistatic and co- hesion properties, low fibre/ metal friction, non-yellowing	worsted yarn spinning, for fine wool with high-count yarn
FLEROL M	X21			
Ionicity Substrate	anionic wool	combination of fatty acid derivates  bluesign APPROVED  Eco logic!	free of mineral oils, well- balanced lubricity, cohesion and antistatic properties, non-yellowing	worsted yarn spinning, for medium and fine wool when a good cohesion is required

# LUBRICANTS AND ADDITIVES

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
FLEROL PLM Ionicity Substrate	anionic wool	combination of fatty acid derivates	free of mineral oils, very good antistatic and cohesion properties, low fibre/metal friction, non-yellowing	worsted and semi-worsted yarn spinning, for ordinary and medium wool and its blends with synthetic fibres, especially non-shrink wool
FLEROL BW Ionicity Substrate	non-ionic cotton	polyglycol ether and fatty acid ethoxylate	eliminates sticking of cotton due to honey dew	lubricant for the processing of cotton affected by honey dew
VOLTURIN TE lonicity Substrate	anionic synthetics	alkyl phosphate bluesign APPROVED	excellent antistatic effects, well-balanced stick/slip properties, stable in fixing processes	antistatic agent for synthetic fibres; for all spinning pro- cesses
VOLTURIN LE Ionicity Substrate	anionic wool, silk, polyacryloni- trile	alkyl phosphate	very good antistatic properties, non-yellowing	antistatic agent for wool, silk and acrylic fibres and their blends; for all spinning processes
ELACTIV QD2 lonicity Substrate	cationic	derivate of amine quaternisated	very good antistatic properties, dust-binding, non-yellowing	antistatic agent for acrylic fibres; for open-end spinning
CONDISOL Golonicity Substrate	non-ionic wool, silk, polyacryloni- trile	ethoxylate compound	increases and preserves the humidity on the fibres in adverse environmental conditions	antistatic agent for wool, silk and acrylic fibres and their blends; for all spinning processes
SILSOL 130 Ionicity Substrate	anionic wool	colloidal silica in aqueous dispersion	strong cohesion power, improves adhesiveness between threads	high-cohesion agent for natural fibres and their blends; for all spinning processes
SILSOL 330 Ionicity Substrate	anionic wool	colloidal silica in aqueous dispersion	high cohesion power, improves adhesiveness between threads, pre- serves the handfeel of fabrics	high-cohesion agent for natural fibres and their blends; for all spinning processes

### LUBRICANT SPECIALITIES

PRODUCT	-	CHEMISTRY	CHARACTERISTICS	APPLICATION
FLEROL PP Ionicity Substrate	non-ionic polypropylene	polyglycol ester	excellent lubricity, good anti- electrostatic effect, based on raw materials according to FDA, biodegradable	manufacture of polypropylene tapes for packaging material and tufted carpet backs
FLEROL CS Ionicity Substrate	<b>45</b> anionic wool	combination of fatty acids and polyoxyethylene	free of mineral oils, well balanced lubricity, cohesion and antistatic properties, non-yellowing	lubrication of raw wool after washing in combing process
VOLTURIN 1	anionic	combination of alkylphosphate	excellent antistatic effect,	antistatic agent for spinning
Substrate	all	and selected additives	does not yellow or go rancid, easily washable in normal processes	processes of natural, artificial and synthetic fibres, combing of wool fibre, nonwoven pro- duction of natural, artificial and synthetic fibres

# LUBRICANTS – TWISTING & WEAVING

#### **PRODUCT CHEMISTRY** CHARACTERISTICS APPLICATION **TORSINOL ZSB** hydrocarbons and fatty acid very good lubricity, dust universal use for all fibre Ionicity non-ionic Substrate ethoxylate binding, antistatic, corrosion- types bluesign\* inhibiting, easy to remove by washing Zschimmer & Schwarz

### WET WAXING AGENTS

PRODUC	Γ	CHEMISTRY	CHARACTERISTICS	APPLICATION
KATAMIN B	3W 3.0			
lonicity	cationic/ non-ionic	polyethylene, paraffin, fatty alcohol and emulsifiers	high yarn lubricity and anti- static properties, low amount	fibres and their mixtures
Substrate	cotton, poly- acrylonitrile	bluesign Eco logic!	of paraffins, non-resinifying at higher temperatures, retains hydrophilic nature of cotton, GOTS-certified	with synthetic fibres and for acrylic yarns
KATAMIN U	INI			
lonicity	cationic	paraffin and emulsifiers	very high lubricity and an-	universal application to yarns
Substrate	all	bluesign APPROVED	tistatic properties, uniform distribution over the whole bobbin, easy handling, excel- lent smoothness, GOTS-certified	of all fibre types
KATAMIN G	V			
lonicity Substrate	cationic	polyethylene, paraffin, fatty acid condensation products	combination of softening and smoothing agents, bulky handle, good antistatic properties	for yarns of all fibre types
KATAMIN E	Р			
lonicity Substrate	non-ionic wool	paraffin emulsion	high yarn lubricity, non- resinifying at higher tem- peratures	carded spinning of wool and its blends with synthetic fibres for knitted yarn

# WARP WAXING/ COLD SIZING AGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ENSIMOL KV	N conc			
lonicity Substrate	non-ionic synthetics	polyglycol ether and fatty alcohol ethoxylate  bluesign* APPROVED  Eco logic!	warp waxing agent with ex- cellent antistatic properties, good dust-binding capacity, very easy to remove by washing, GOTS-certified	synthetic fibres and their mixtures
ENSIMOL WA	AX			
lonicity Substrate	non-ionic all	fatty acid ethoxylate and special additives	warp waxing agent with excellent smoothing properties, reduces the tendency of the threads to hook to each other and facilitates shed formation, very easy to remove by washing	universally applicable to all types of fibres
ENSIMOL PE	36			
lonicity Substrate	anionic cotton, polyester	oxyethylated derivatives, antistatic agents and selected additives	high cohesion properties, non-sticky, good lubricant and antistatic power, does	cold sizing agent for artificial, synthetic fibres and their blends
	potyester	auditives	not turn yellow or develop bad odours, easily washable in normal desizing processes	
ENSIMOL BO				
lonicity Substrate	anionic wool	polymer with high molecular weight	warp waxing agent with good antistatic properties, reduces the formation of dust deposits, easily remov- able by washing	wool fibres and their blends

# LUBRICANT – TEARING PROCESSES

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
CELLANA (	GB			
Ionicity	non-ionic	hydrocarbons and fatty acid	mineral oil lubricant, good	universally applicable to all
Substrate	all	ethoxylates	suppleness and lubricity,	types of fibres
			dust-binding, non-resinifying	g
			and corrosion-inhibiting	

# SEQUESTERING AGENTS/ WATER TREATMENT

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
OPTAVON 4U lonicity	anionic	organic phosphorus and carboxylic acid compound	strong acid-complexing agent with excellent se-	acid demineralisation, bleaching, neutralising
Substitute .	cotton, imen	bluesign APPROVED	questering properties, very good stabilising effect in peroxide bleaching, key product for OPTABLEACH, GOTS-certified	bleaching, neutralising
OPTAVON N				
lonicity Substrate	anionic all	bluesign APPROVED	highly efficient complexing and dispersing agent with an excellent binding of cal- cium, magnesium and iron ions, supports the deterg- ing effect of surfactants, prevents silicate deposits on machinery parts, GOTS-certified	desizing, removal of lubricants, alkaline scouring, bleaching, water correction
OPTAVON DS	SQ			
lonicity Substrate	anionic all	organic phosphorus compound	universally applicable sequestering agent with an excellent soil-suspending power, very good dispersing behaviour for clay minerals, high iron-binding power	desizing, removal of lubricants, alkaline scouring, bleaching, water correction
OPTAVON SV	/			
lonicity Substrate	anionic all	polyacrylate compound  bluesign*  APPROVED	prevents precipitation caused by hard water, dispersing of insoluble sub- stances, high soil-suspend- ing power, GOTS-certified	desizing, removal of lubri- cants, bleaching

# SEQUESTERING AGENTS/ WATER TREATMENT

#### **PRODUCT CHEMISTRY** CHARACTERISTICS APPLICATION **OPTAVON MEX** Ionicity organic phosphorus and acid demineralisation, alkaanionic excellent sequestering Substrate cotton, linen carboxylic acid compound line scouring, bleaching power regarding iron ions bluesign<sup>®</sup> and hardness elements, reduction of catalytic damages on the textile goods during hydrogen peroxide bleaching, very good stabilising effect in peroxide bleaching, GOTS-certified **OPTAVON MEL** Ionicity anionic organic phosphorus and very good sequestering acid demineralisation, alka-Substrate cotton, linen carboxylic acid compound power regarding iron ions line scouring, bleaching bluesign<sup>®</sup> and hardness elements, reduction of catalytic damages on the textile goods during hydrogen peroxide bleaching, very good stabilising effect in peroxide bleaching, prevents silicate deposits, GOTS-certified **OPTAVON BAS** biodegradable sequestering desizing, bleaching, removal combination of polyfunctional Ionicity anionic and complexing agent, free of lubricants Substrate organic acids bluesign<sup>®</sup> of phosphorus, stabilising agent for hydrogen peroxide bleaching, GOTS-certified

# SEQUESTERING AGENTS/ WATER TREATMENT

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PRODUCT	Т	CHEMISTRY	CHARACTERISTICS	APPLICATION
OPTAVON F	liq			
Ionicity	anionic	organic sodium salt	water treatment agent for	scouring process of silk
Substrate	silk		eliminating heavy metals	
			and hearty alkaline	
OPTAVON O	L			
lonicity	anionic	mixture of inorganic salts and a	strong sequestering power,	sequestering agent for
Substrate	wool	sequestering agent	avoids salt deposits, higher	bleaching acrylic fibres with
			degree of whiteness	sodium chlorite



# DETERGENTS

PRODUC	Γ	CHEMISTRY	CHARACTERISTICS	APPLICATION
TISSOCYL I	RLB			
lonicity Substrate	non-ionic all	bluesign APPROVED	highly concentrated, outstanding wetting and deterging power; excellent emulsifying power for min- eral and ester oils, waxes and lubricants	universal deterging and wet- ting agent
TISSOCYL I	DLF			
Ionicity Substrate	non-ionic all	bluesign APPROVED	highly concentrated, low-foaming, good deter- gency and soil-suspending power	deterging and wetting agent for the pretreatment of cellulosic and synthetic fibres, suitable for jet dyeing machines
TISSOCYL (	CFD conc			
lonicity Substrate	non-ionic all	fatty alcohol ethoxylates	highly concentrated, good emulsifying power for min- eral and ester oils, waxes and lubricants; low-foaming, stable to alkali up to 40 g/l NaOH (flakes)	universal detergent and wetting agent for all textile processes, manufacturing of dilutions
TISSOCYL I	NMP			
lonicity Substrate	anionic/ non-ionic all	fatty alcohol ethoxylate, natural micro-particles  bluesign APPROVED  Eco logic!	very good emulsifying of mineral and silicone oils, stabilising of hydrogen per- oxide, low-foaming, low CSB and BSB values, GOTS-cer- tified	ecological detergent for removing oily lubricants from synthetics, bleaching com- pound for cotton and mixtures
TISSOCYL I	RC 9			
lonicity Substrate	non-ionic elastics	combination of non-ionic surfactants  bluesign  APPROVED  Eco logic!	spontaneous emulsifying of silicone oils, very good emulsifying of lubricants, displays maximum emulsi- fying effect at low tempera- tures, GOTS-certified	special detergent for the removal of oily lubricants, in particular silicone oils from elastane-containing goods
TISSOCYL.	JT			
Ionicity Substrate	non-ionic synthetics	combination of non-ionic surfac- tants	excellent emulsifying of oils, lubricants and warp waxing agents, low-foaming	detergent for the removal of oily lubricants from cellulosic and synthetic fibres

# DETERGENTS

PRODUC1	Γ	CHEMISTRY	CHARACTERISTICS	APPLICATION
TISSOCYL F	POW			
lonicity Substrate	non-ionic all	fatty alcohol ethoxylates	excellent emulsifying power for mineral and ester oils, waxes and lubricants; suit- able for automatical dosing systems, low foaming	universal detergent and wetting agent for the pre- treatment of cotton and mixtures
	_			
TISSOCYL C lonicity Substrate	non-ionic all	alkylpolyglycolether compound	highly concentrated, good emulsifying power for min- eral and ester oils, waxes and lubricants, low foaming	special low foaming detergent for wool, silk and acrylics
TISSOCYL 1	ΓBL			
lonicity Substrate	non-ionic wool	alkylpolyglycolether compound	highly concentrated, good emulsifying power for the greasing of wool, mineral and ester oils, waxes and lubricants	special detergent for washing raw wool in combing plant
SUPRALAN	LMW			
lonicity	anionic wool	modified fatty acid ethoxylates with anionic and amphoteric product	high quantity of fine foam, soft and slippery touch, use in all pH ranges, excellent foam stability and duration	wetting, milling and washing agent for wool
SUPRALAN	FZB			
lonicity Substrate	anionic wool	natural fatty alcohol derivate	very good deterging and emulsifying power, excel- lent foam stability	wetting, milling and washing agent for fine wool fabrics
AMPHOTEX	MB23			
lonicity Substrate	amphoteric wool	modified fatty acids	very good detergimg and emulsifying power, excel- lent foam stability, biode- gradable	wetting, milling and washing agent for cashmere fibres
SINCAL F Ionicity Substrate	anionic wool, cotton	alkylsulphonate	outstanding deterging efficiency, formation of microfoam, GOTS-certified	wetting, milling and washing agent for all kinds of fibres; applicable in a pH range of 2 – 12

## WETTING AGENTS

PRODUCT	Г	CHEMISTRY	CHARACTERISTICS	APPLICATION			
NEWALOL PFN							
lonicity Substrate	non-ionic all	bluesign APPROVED  Eco logic!	excellent wetting proper- ties, low-foaming, compatible with enzymes, GOTS-certified	universal rapid wetting agent for pretreatment			
NEWALOL S Ionicity Substrate	anionic	sulphosuccinate	quick and even wetting of goods in an acid up to mildly alkaline range, easy to rinse	rapid wetting agent for use in the medical field			
NEWALOL Colonicity Substrate	non-ionic wool	ethoxyl product	excellent wetting proper- ties, stable to chlorine	rapid wetting agent for the non-shrink treatment of wool			

# SCOURING AGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
SINCAL MA lonicity Substrate	RS flakes anionic silk	natural fatty acids	very good emulsifying, dispersing and rewetting properties	detergent for the degumming of silk
lonicity Substrate	anionic silk	fatty alcohol ethoxylate and sequestering agent	very good emulsifying, dispersing and rewetting properties	detergent for the degumming of silk

# BLEACHING COMPOUNDS

PRODUCT	Г	CHEMISTRY	CHARACTERISTICS	APPLICATION
REDUZIN W Ionicity Substrate	anionic wool	mixture of compounded organic components	bleaching and dyeing in the same bath, reduces bleach- ing time, preserves wool softness	compound product for hydrogen peroxide bleaching of wool fibres and their blends with synthetics
ZS-CLEANE	REDOX BFW			
Ionicity	-	mixture of inorganic redu-	bleaching and dyeing in the	bleaching agent for wool
Substrate	wool	cing and complexing agent	same bath without hydrogen peroxide, good compatibility with dyestuff	

# BLEACHING STABILISER

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
REDUSTAB (	os			
lonicity Substrate	anionic cotton	organic salt	excellent stabilising prop- erties, for discontinuous and continuous peroxide bleaching, very high degree of whiteness, GOTS-certified	universal stabiliser for sili- cate-free peroxide bleaching
OPTAVON BA	AS			
Ionicity	anionic	combination of polyfunctional	biodegradable sequestering	desizing, bleaching,
Substrate	cotton	bluesign APPROVED	and complexing agent, free of phosphorus, stabilising agent for hydrogen peroxide bleaching, GOTS-certified	removal of lubricants
REDUSTAB I	(OS		<b>3</b> ,	
lonicity	anionic	organo-metallic derivate	excellent stabilising prop-	stabiliser for peroxide bleach-
Substrate	wool	bluesign Eco logic!	erties, ensures the regular development of oxygen throughout treatment, GOTS-certified	ing of wool and silk fibres

# BLEACHING STABILISER

PRODUCT	Γ	CHEMISTRY	CHARACTERISTICS	APPLICATION
REDUSTAB	SWB			
lonicity	anionic	anorganic substance with	excellent buffering effect in	special stabiliser for per-
Substrate	cotton,	organic additives	alkaline hydrogen bleach-	oxide bleaching of cotton and
	cotton/		ing bath, smooth bleaching	cotton/polyamide
	polyamide		conditions possible, reduces	
			tailings in cold pad batch	
			bleaching	

## PEROXIDE ACTIVATOR

PRODUC	Γ	CHEMISTRY	CHARACTERISTICS	APPLICATION
OPTAVON L	тв			
lonicity	non-ionic	complexing compound	accelerates the activation of	peroxide activator for the
Substrate	cotton	bluesign <sup>®</sup> Eco logic!	hydrogen peroxide, enables	low-temperature bleaching
		APPROVED	safe and short bleaching	of cotton
			processes with highest	
			degrees of whiteness even	
			at temperatures below	
			80 °C, eco-friendly product	
			for environmental protection	
			→ key product for COLD	
			WHITE process	

STA	IN RI	EMOVERS		
PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
DEPICOL ND	anionic	fatty alcohol and alkyl amine	distinctive dispersing and	solvent-free degreasing and
Substrate	cotton, syn- thetics	ethoxylate	soil-suspending power, ex- cellent extraction power with regard to fats and wax- es, applicable in bleaching and dyeing processes	washing agent for the scour- ing of synthetics and cotton
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# ANTI-YELLOWING AGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION	
PROTELAN	AY				
lonicity Substrate	non-ionic polyamide, polyamide/ elastane	mixture based on antioxidants (ADH-free) and fatty alcohol ethoxylates	emulsifying and dispersing	anti-yellowing agent designed to reduce yellowing of polyamide and blends with elastane during heat setting, for seamless articles	
			exhaustion		
PROTELAN	CF 2				
lonicity Substrate	non-ionic polyamide, polyamide/ elastane	mixture based on antioxidants  bluesign  APPROVED	prevents yellowing at high temperatures during ther- mosetting, minimises the danger of yellowing caused by contact heat, very good wetting and emulsifying properties, GOTS-certified	anti-yellowing agent designed to reduce yellowing of polyamide and blends with elastane during heat setting and molding	
PROTELAN ATY-P					
lonicity Substrate	polyamide, polyamide/ elastane	carboxylic acid amide bluesign APPROVED	ting and molding, maximum degrees of whiteness for optically brightened articles, suitable for usage in foam	anti-yellowing agent designed to reduce yellowing of polyamide and blends with elastane during heat setting and molding	
			molding processes		
PROTELAN	CEL				
lonicity Substrate	non-ionic cotton/ elastane	combination of fatty alcohol ethoxylates and antioxidants	reduces the tendency of yellowing during heat setting, excellent wetting power, pre-emulsifying of oily preparations and dust, GOTS-certified	anti-yellowing agent designed to reduce the thermal yellow- ing of cotton/elastane blends	
PROTELAN	LGA				
Ionicity Substrate	anionic polyamide, polyester, cotton and blends with	alkyl sulphates bluesign APPROVED	excellent yellowing protection, pH adjustment during application is not necessary, low foaming behaviour, GOTS-certified	anti-yellowing agent designed to reduce yellowing of poly- amide, polyester, cotton and their blends with elastane during storage	

# ANTI-YELLOWING AGENTS

PRODUCT	CHEMISTRY	CHARACTERISTICS	APPLICATION
PROTELAN LGE			
Ionicity anionic Substrate polyamide, polyester an blends with elastane	formulation of alkyl aryl sulpho- nates and special additives  bluesign  APPROVED	very good yellowing protection, excellent performance at low application temperature	anti-yellowing agent designed to reduce yellowing of polyamide, polyester and their blends with elastane during storage
PROTELAN LGS plus			
Ionicity anionic Substrate polyamide, polyamide/ elastane	formulation of alkyl aryl sulpho- nates and special additives  bluesign  APPROVED	excellent yellowing protection, low odour → applicable in hot and open treatment baths; reduces the danger of spots and brownish discolourations during continuous tape finishing	
PROTELAN LGB			
Ionicity anionic Substrate polyamide, polyamide/ elastane	alkyl sulphates	achieves good yellowing protection despite the use of buffering water, low foaming behaviour	anti-yellowing agent designed to prevent yellowing of polyamide and polyamide/ elastane and blends during storage; suitable for buffering water
PROTELAN PSP conc			
Ionicity anionic Substrate polyamide, polyamide/ elastane	bluesign Eco logic!	excellent yellowing pro- tection, highly efficient and durable to washing, very low foaming behaviour, free of nitrogen	special anti-yellowing agent designed to reduce stor- age yellowing of polyamide and polyamide/elastane to achieve a neutral pH value on the fabric and durability to

# FLUORESCENT WHITENING AGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
OPTAPHOR E	BA liq 01			
lonicity Substrate	anionic cotton, polyamide	stilbene disulfonic acid derivative  bluesign  APPROVED	neutral up to bluish shade of white, high affinity to cotton, stable at pH 5 – 13, GOTS-certified	• •
OPTAPHOR E	BA-B liq			
lonicity Substrate	anionic cotton, polyamide	stilbene disulfonic acid derivative	brilliant, bluish-violet shade of white, high affinity to cot- ton, stable at pH 5 – 13	fluorescent whitening agent for cotton and polyamide with a bluish-violet shade, suitable for exhaust application
OPTAPHOR E	BBU liq 01			
Ionicity Substrate	anionic cotton	stilbene disulfonic acid derivative  bluesign* APPROVED	neutral up to bluish shade of white, low affinity to cotton, stable at pH 3.5 – 13, GOTS-certified	
OPTAPHOR E	BRU liq			
lonicity Substrate	anionic cotton	stilbene disulfonic acid derivative  bluesign  APPROVED	neutral up to slightly red shade of white, low affinity to cotton, stable at pH 3.5 – 13, GOTS-certified	fluorescent whitening agent for cotton, suitable for pad- ding and exhaust application
OPTAPHOR F	PAW liq			
lonicity Substrate	anionic cotton, silk, polyamide, wool	distyryl-biphenyl derivative bluesign APPROVED	neutral up to slightly red shade of white, high affinity to polyamide and wool, low affinity to cotton, stable at pH 1 – 12	fluorescent whitening agent for polyamide 6 and 6.6, wool, silk and cotton, suitable for padding and exhaust appli- cation

## DISPERSING AGENTS

PRODUC	Г	CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESAN D	HT			
Ionicity Substrate	non-ionic polyester	bluesign Ecologic	excellent dispersing power on disperse dyes and very good levelling action	special dispersing agent for dyeing and aftertreatment of polyester
ZETESAN O	LE			
Ionicity Substrate	anionic polyester	modified nano-particles	excellent dispersing effect on oligomers, prevents oli- gomer deposits on polyester material and machine parts	special dispersing agent for oligomers
ZS-DYESE1	T RFT			
Ionicity Substrate	anionic cellulosics, polyamide, polyester	combination of a nitrogen derivative with polycarboxilic acid, alkyl aryl sulfonate and inorganic salts  bluesign  APPROVED	dispersing, sequestering properties, improvement of dyebath stability, increases the reproducibility of the dyeings, no foaming, GOTS-certified	dyebath conditioner for dye- ing of cellulosics, polyamide and polyester
ZETESAN K	(A			
Ionicity Substrate	cationic wool, poly- acrylonitrile	bluesign Eco logicl	excellent dispersing power, improves dyestuff rubbing fastness, reduces unfixed dyestuff on the fibres,	special dispersing agent for dyeing blends of WO/PAC in a single bath
			GOTS-certified	
ZETESAN D	OAV			
lonicity Substrate	non-ionic all	ethoxylated fatty alcohols	excellent dispersing power, good detergency, good emul- sification of fats and oils	dyeing and pretreatment of natural and synthetic fibres
ZETESAN 3	_	diameter		
Ionicity Substrate	non-ionic/ anionic denim	aqueous dispersion of polymers and additives	excellent dispersing power, prevents staining of white ground	aftertreatment of denim fabrics
7575044	A DI			
Ionicity Substrate	anionic all	modified derivative of aromatic condensed compound	excellent dispersing power in a wide pH range, low foam formation	dyeing of natural and syn- thetic fibres as well as their blends

# SEQUESTERING AGENTS

PRODUCT	Γ	CHEMISTRY	CHARACTERISTICS	APPLICATION
OPTAVON S lonicity Substrate	anionic	polyacrylate <b>bluesign</b>	dispersing effect, alkali- and salt-stable, foam-free, no	complexing agent and pro- tective colloid for all dyeing,
		APPROVED	demetallising effect e.g. on copper containing dye- stuffs; no influence on light	exhaust and continuous processes
			fastness, shade and dyestuff yield; GOTS-certified	
OPTAVON N	IW			
Ionicity Substrate	anionic all	organic phosphorus compound  bluesign  APPROVED	dispersing of calcium and magnesium separations, foamless, stable within a pH range of 1 up to 14; usage in polyamide aftertreatment is possible, GOTS-certified	complexing agent and pro- tective colloid for all dyeing, exhaust and continuous processes

# PH-REGULATING & BUFFERING/ ALKALI & ACID DONORS

PRODUC	Г	CHEMISTRY	CHARACTERISTICS	APPLICATION
ALKASET A	VOB			
Ionicity Substrate	anionic cellulosics	buffer mixture	easy shading, reduces dyeing time, higher dyestuff yield, even and controlled liberation of alkali	alkali donor for high and medium reactive dyestuffs on cellulosics, exhaust process
SETACID PA	AS			
Ionicity Substrate	non-ionic polyamide	bluesign APPROVED	slowly reduces pH value down to a final pH value of about 4.5 which results only at dyeing temperature	acid donor for the dyeing of polyamide, exhaust process
SETACID A	B conc			
lonicity Substrate	- all	bluesign APPROVED  Eco logic!	excellent buffering effect, good sequestering effect for fe and ca ions, low-foaming, dispersing effect	pH adjustment of polyester dyeing baths in the acidic range, exhaust and continu- ous process

# WETTING/DEAERATION/PADDING

PRODUCT			CHEMISTRY	CHARACTERISTICS	APPLICATION	
	CEFATEX EN					
	lonicity	anionic	combination of ethoxylates with	wetting, defoaming, high-	deaerating agent,	
	Substrate	all	defoaming components	temperature stability, no	exhaust process	
			bluesign	influence on the shade,		
			APPROVED	GOTS-certified		
	CEFAPAD W	AT				
	Ionicity	anionic	sulfonocarboxylic ester	excellent wetting properties	rapid wetting agent for dyeing	
	Substrate	polyamide,	bluesign		of polyamide and polyester	
		polyester,	APPROVED		tapes	
		cotton				
	CEFAMIG MF					
	Ionicity	anionic	polyacrylamide	foamless, stable to acid and	anti-migration agent for pad	
	Substrate	cellulosics,		alkali, no influence on shade		
		synthetics		and dyestuff yield	cellulosics	
		5,7111101103		and ajostan jiota	55113155165	

# LEVELLING AGENTS/CARRIER

#### Acrylic

PRODUCT	Г	CHEMISTRY	CHARACTERISTICS	APPLICATION
SETAVIN LS	SP			
Ionicity	cationic	quaternary ammonium	reduces the uptake rate,	levelling agent with blocking
Substrate	polyacrylo-	compound	promotes migration and	effect for acrylic fibres
	nitrile		evenness	

## LEVELLING AGENTS/CARRIER

#### Polyester

PRODUCT	Γ	CHEMISTRY	CHARACTERISTICS	APPLICATION	
SETAVIN 3E	)				
Ionicity Substrate	anionic polyester	combination of fatty acid ethoxylate and aromatic carboxylic acid compound	dosable, dispersing, levelling, migration-promoting already from 100 °C on, no influence on fastness properties	dosable levelling agent with dispersing properties and diffusion-accelerating effect	
SETAVIN PE	E				
Ionicity Substrate	non-ionic polyester	bluesign APPROVED Eco logic!	levelling, dispersing prop- erties, low-foaming, high dyestuff-retarding effect during heating-up phase, GOTS-certified	highly concentrated levelling agent	
SETAVIN SU	J-E				
Ionicity Substrate	anionic polyester	ate and aromatic esters  bluesign APPROVED  Eco logicl	levelling, promotes migration already from 100 °C on, no influence on fastness properties	concentrated levelling agent with diffusion-accelerating effect	
SETAVIN MI	IG				
lonicity Substrate	anionic polyester	combination of fatty acid ethoxyl- ate and aromatic carboxylic acid compounds		combination of dispersing/ levelling agent with diffusion- accelerating effect	
ZS-ECOCAF					
Ionicity Substrate	anionic	aromatic carboxylic acid com-	biodegradable, low odour	dye carrier for discontinuous	
Substrate	polyester	pound bluesian		and continuous processes	

## LEVELLING AGENTS/CARRIER

#### Polyamide

PRODUCT	Г	CHEMISTRY	CHARACTERISTICS	APPLICATION
SETAVIN LI	NY			
Ionicity Substrate	anionic polyamide	combination of alkylamine ethoxylates and alkyl benzene sulphonates  bluesign  APPROVED	combination of components with fibre and dyestuff affinity, reduction of absorption rate during heating-up phase, levels out affinity differences on the fibre, reduction of barriness	levelling agent with optimised price/performance ratio for the dyeing of polyamide with acid, metal complex and direct dyestuffs, discontinuous and continuous processes
SETAVIN PA	Α			
Ionicity Substrate	anionic polyamide	combination of alkylamine ethoxylates and alkyl benzene sulphonates  bluesign  APPROVED	combination of components with fibre and dyestuff affinity, reduction of absorption rate during heating-up phase, levels out affinity differences on the fibre, reduction of barriness; good migrating, wetting and dispersing effects	standard levelling agent for the dyeing of polyamide with acid, metal complex and di- rect dyestuffs, discontinuous and continuous processes
SETAVIN K	S			
Ionicity Substrate	non-ionic polyamide	bluesign APPROVED	good levelling effect, im- proves the dyestuff mi- gration, good wetting and dispersing effects, foamless	universal levelling agent for the dyeing with acid and 1:2 metal complex dyestuffs, also for differential dyeing
SETAVIN PI	NT			
lonicity Substrate	anionic polyamide	alkyl aryl sulphonate	high affinity for the fibre, thus lowering the absorp-	levelling agent for dyeing polyamide with acid dyestuffs
			tion rate even when dyeing polyamide fibres with high dyestuff affinity, excellently covers material irregularities, powerful migration-promoting properties, good wetting effect	below boiling temperature, excellent coverage of barri- ness
SETAVIN TA	000			
Ionicity Substrate	anionic polyamide	alkane sulphonate	affinity for the fibre, levels out affinity differences of the fibres, excellent level- ling and wetting properties, highly concentrated	special levelling agent for the continuous dyeing of poly- amide tapes, low-foaming,

## LEVELLING AGENTS/CARRIER

#### Wool

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION		
SETAVIN CN	A					
lonicity Substrate	cationic wool	alkylaminopolyglycolether  bluesign APPROVED  Eco logict	reduces the uptake rate and improves the migration, acts both during temperature rise and during the permanence at boiling, GOTS-certified	·		
SETAVIN RE						
Ionicity Substrate	amphoteric wool	alkylaminopolyglycolether	reduces the absorption rate, improves exhaustion, levels wool with different affinity, avoids dyestuff deposits and improves rubbing	levelling agent for the dyeing of wool, also anti-shrink wool with reactive dyestuff		
			fastness as well as repro- ducibility			
SETAVIN RW	/P					
lonicity Substrate	anionic wool, polyamide	sulphonic acid derivate	reduces the uptake rate and improves the migration, levels the affinity difference in order to obtain tone-ontone colours	levelling and reserving agent for the dyeing of wool/poly- amide		
SETAVIN ZA Ionicity	amphoteric	sulphate of alkylaminopoly-	reduces the uptake rate and	levelling and reserving agent		
Substrate	wool/poly- ester, wool/ polyacrylo-	glycolether  bluesign APPROVED  Eco logic!	·	for the dyeing of WO/PES and WO/PAC with premetallised dyestuff		
	nitrile		permanence at boiling, very good dispersing power in dyeing of WO/PES and WO/PAC, GOTS-certified			
SETAVIN TTLB						
Ionicity Substrate	non-ionic wool	alkylaminopolyglycolether with softener	reduces the dyeing temperature to 80 – 85 °C, guarantees the same level of fastness, evenness and shades as in the standard process, reduces wool felting and wool yellowing, makes wool easier to spin	special levelling agent for the dyeing of wool at low temperatures, mainly for staple and combed sliver		

# LEVELLING AGENTS/CARRIER

#### Wool

PRODUCT	•	CHEMISTRY	CHARACTERISTICS	APPLICATION
SETAVIN MS Ionicity Substrate	on non-ionic wool	alkylamine ethoxylate  bluesign  APPROVED  Eco logic!	reduces the absorption rate, migration-promoting, good wetting and dispersing prop-	for the dyeing with acid,
			erties, no selective influence on the dyestuff yield, low- foaming, GOTS-certified	dyestuffs

#### Cellulose

Cellulose				
PRODUCT	CHEMISTRY	СН	ARACTERISTICS	APPLICATION
,	ionic alkylamine etho losics	impi at fii low disp	·	levelling agent for direct dyestuffs
SETAVIN KE Ionicity non- Substrate cellu	ionic polyamine losics bluesign	dyes the	stuff affinity, lowers dyestuff absorption	levelling agent for vat dyestuffs as well as direct dyestuffs
		aggl	ration, inhibits dyestuff lomerates, no retarding, -foaming, GOTS-certified	
SETAVIN RCO  lonicity anion	nic combination of	a nitrogen ph-r	regulating, dispersing,	levelling agent for reactive
,	losics derivative with	polycarboxylic sequences sulphonate and prot		dyestuffs

# CREASE-PREVENTING AGENTS

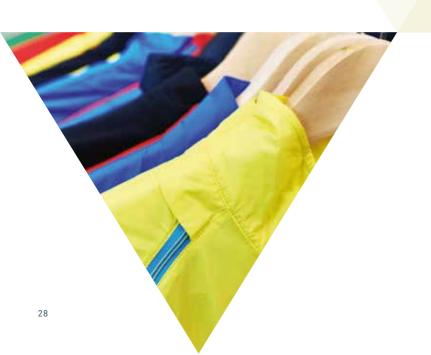
PRODUCT				
		CHEMISTRY	CHARACTERISTICS	APPLICATION
LUBATEX E	CS			
lonicity	non-ionic	polyacrylamide	foamless, shear-stable, no	for use in pretreatment and
Substrate	cellulosics	bluesign	retarding effect, high salt	dyeing
		APPROVED	stability, resistant to acids	
			and alkalis, GOTS-certified	
LUBATEVII	,			
LUBATEX L\		fatty asid condensation product	formless concentrated	for use in protrectment and
lonicity	non-ionic/ slightly anionic	fatty acid condensation product	universal crease-preventing	for use in pretreatment and dyeing
Substrate	polyester, poly-	Eco logic:	agent; electrolyte-stable;	dyeing
Substrate	amide, wool,		stable to acids and alkalis,	
	cellulosics		GOTS-certified	
LUBATEX RI	JN			
Ionicity	non-ionic	mixture of hydrophilic polymers		for use in dyeing
Substrate		and fatty acid condensation	agent with additional	
	amide, wool	product	benefits (smoothness,	
		bluesign <sup>®</sup>	hydrophilicity, soil release,	
		ATTROVES	antistatic), GOTS-certified	
LUBATEX SZ	Z conc			
lonicity	slightly anionic	emulsified product based on	concentrated crease-	for use in fabric dyeing
Substrate	wool, silk	fatty material	preventing agent, enables	
			higher loading of goods in	
			the machineries, suitable to	
			protect fine fabrics	
PROTELAN	non-ionic	aguagus disparsion of polymors	special crosse proventing	for use in fabric processes
Ionicity Substrate	wool	aqueous dispersion of polymers with high molecular weight	agent, protects from felting	of wool
Substrate	WOOT	with high motecutal weight	during wet processes, low-	of woot
			foaming, no effect on any	
			dyestuff	
LUBATEX A	25			
Ionicity	non-ionic	polyamide derivatives	crease-preventing agent	dyeing of synthetic fibres
Substrate	synthetics		with good lubricating and	
			antistatic power, gives	
			hydrophilicity to the fibre,	
			non-yellowing	

## AFTERTREATMENT AGENTS

#### Polyester

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESAL NV	VM			
lonicity Substrate	anionic polyester	bluesign APPROVED  Eco logic!	excellent improvement of wet fastness, fastness to rubbing and to organic sol- vents, GOTS-certified	clearing agent to improve fastness properties by using ZS Clearing System
ZETESAL NP	C			
lonicity	anionic	carboxylic acid derivatives	excellent improvement of	clearing agent to improve
Substrate	polyester	bluesign APPROVED	wet fastness, GOTS-certified	fastness properties by using the ZS Reactiveflash System
PROTELAN U				
Ionicity Substrate	anionic polyester	benzotriazole derivate	improves FAKRA light fast- ness, no effect on shade	improves light fastness of polyester for automotive
PROTELAN U				
lonicity	anionic	benzophenone derivate	improves FAKRA light fast-	improves light fastness of
Substrate	polyester		ness, no effect on shade	polyester for automotive, with thermosol dyeing process

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## AFTERTREATMENT AGENTS

#### Polyamide

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION			
ZETESAL NR							
lonicity Substrate	anionic polyamide	polycondensation product of aromatic sulphonic acids  bluesign  APPROVED	excellent wet fastness properties, universal use, jet-stable, no influence on light fastness and shade, for highest quality require- ments	improvement of wet fastness of dyeings and printings on polyamide with acid dye- stuffs; reserving agent for PA/wool and PA/cellulosic blends; process: jet or contin- uous dyeing			
ZETESAL N	IR gold+						
Ionicity Substrate	anionic polyamide	polycondensation product of aromatic sulphonic acids  bluesign* APPROVED	excellent wet fastness, universal use, jet-stable, no influence on light fastness and shade, substantially lower yellowing of the treat- ed goods, for highest quality requirements, fresh odour	improvement of wet fastness of dyeings and printings on polyamide with acid dye- stuffs; reserving agent for PA/wool and PA/cellulosic blends; process: jet or contin- uous dyeing			
ZETESAL N	IR gold+ liq						
Ionicity Substrate	anionic polyamide	polycondensation product of aromatic sulphonic acids  bluesign  APPROVED	excellent wet fastness properties, dosable, jet- stable, no influence on light fastness and shade, sub- stantially lower yellowing of the treated goods, for highest quality require- ments, fresh odour	improvement of wet fastness of dyeings and printings on polyamide with acid dye- stuffs; reserving agent for PA/wool and PA/cellulosic blends; process: jet or contin- uous dyeing			
ZETESAL F	AP						
Ionicity Substrate	anionic polyamide	polycondensation product of aromatic sulphonic acids  bluesign  APPROVED  Eco logic!	non-yellowing, universal use, no influence on light fastness, shade and handle, for high quality requirements, GOTS-certified	improvement of wet fastness of dyeings and printings on PA with acid dyestuffs; especially brilliant and turquoise shades, reserving agent for PA/wool and PA/cellulosic blends; process: jet or continuous dyeing			

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# AFTERTREATMENT AGENTS

#### Polyamide

	PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION	
	ZETESAL FS	A				
	lonicity Substrate	anionic polyamide	polycondensation product of aromatic sulphonic acids  bluesign  APPROVED	stable in acid conditions as well as to concentrated acetic acid, improves wet fastness, good reserving power, no influence on light fastness and shade, no yellowing, no effect on fastness properties by subsequent steaming and heat-setting processes, compliant with STANDARD 100 by	aftertreatment and reserving agent for dyeing and printing on polyamide fibres, including carpet printings	
	ZETESAL NT			OEKO-TEX®		
	Ionicity Substrate	anionic polyamide	polycondensation product of aromatic sulphonic acids bluesign APPROVED	non-yellowing, universal use, no influence on light fastness, shade and handle, for high-quality require- ments	improvement of wet fastness of dyeings and printings on PA with acid dyestuffs; reserving agent for PA/wool and PA/cellulosic blends process: jet or continuous dyeing	
	ZETESAL TC	S				
	Ionicity Substrate	cationic polyamide	bluesign* APPROVED	universal use, jet-stable, for highest standards of wet fastness properties; applied during the double-fixing process (anionic/cationic)	aftertreatment agent for im- proving wet fastness proper- ties, in particular the fastness to water and perspiration, of dyed polyamide and wool as well as their mixtures with	
					elastane	
	ZETESAL CP	W				
	lonicity Substrate	cationic polyamide, wool	bluesign APPROVED	universal use, jet-stable, for highest standards of wet fastness properties; applied during the double fixing pro- cess (anionic/cationic)	aftertreatment agent for improving wet fastness properties, in particular the fastness to water and perspiration, of dyed polyamide and wool as well as their mixtures with elastane	

## AFTERTREATMENT AGENTS

#### Polyamide

PRODUCT	Г	CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESAL F	conc			
Ionicity Substrate	cationic polyamide, wool	bluesign APPROVED	universal use, jet-stable, for highest standards of wet fastness properties; applied during the double fixing pro- cess (anionic/cationic)	aftertreatment agent for im- proving wet fastness proper- ties, in particular the fastness to water and perspiration, of dyed polyamide and wool as well as their mixtures with elastane
PROTELAN	UV-PA			
Ionicity Substrate	anionic polyamide	compound of copper mixed with protectors	improves FAKRA light fast- ness, no influence on wet fastness and handle	improves light fastness of polyamide

Cellulose						
PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION		
ZETESAL 20 lonicity Substrate	cationic cellulosics	quaternary ammonium compound bluesign APPROVED	formaldehyde-free, concentrated product, good results in fastness to washing at 95 °C, no influence on light fastness and handle, GOTS-certified	improvement of wet fast- ness of reactive dyeings and printings; padding or exhaust process		
ZETESAL FI lonicity Substrate	x cationic cellulosics	quaternary ammonium compound  bluesign  APPROVED  Eco logic!	formaldehyde-free, concentrated product, very good improvement of wash fastness, no influence on light fastness and handle, GOTS-certified	improvement of wet fast- ness of reactive dyeings and printings; padding or exhaust process		
ZETESAL W Ionicity Substrate	er cationic cellulosics	quaternary ammonium com- pound bluesign APPROVED	formaldehyde-free, no influence on light fastness and handle, GOTS-certified	improvement of wet fast- ness of reactive dyeings and printings; padding or exhaust process		

# AFTERTREATMENT AGENTS

#### Cellulose

PRODUCT	,	CHEMISTRY	CHARACTERISTICS	APPLICATION		
ZETESAL CO Ionicity Substrate	cationic cellulosics	polyammonium compound  bluesign  APPROVED	formaldehyde-free, concentrated product, excellent protection of reactive dyeings against influence of active chlorine in swimming pools and household detergents, also imparts good fastness to washing, GOTS-certified	improvement of chlorine fast- ness and wet fastness of re- active dyeings and printings; padding or exhaust process		
ZETESAL TO	:S					
Ionicity Substrate	cationic cellulosics	polyamine bluesign APPROVED	formaldehyde-free, no influence on light fastness and handle, especially effective on dyeing with C.I. Reactive 19 and 21	improvement of the wet fast- ness of direct and reactive dyeings and printings; pad- ding or exhaust process		
ZETESAL CF	PW .					
lonicity Substrate	cationic cellulosics	bluesign* APPROVED	formaldehyde-free, no influence on light fastness and handle	improvement of the wet fast- ness of direct and reactive dyeings and printings; pad- ding or exhaust process		
ZETESAL LT	'S					
Ionicity Substrate	anionic cellulosics	bluesign Eco logic!	strongly dispersing, pro- motes the removal of non-fixed dyestuff, prevents redeposition, foamless, also usable in dyebath, soaping at	aftersoaping agent for fast- ness improvement of reactive dyeings and printings		
			70 °C possible for selected dyestuffs, GOTS-certified			
ZETESAL NS						
lonicity Substrate	anionic cellulosics	bluesign APPROVED	strongly dispersing, pro- motes the removal of non-fixed dyestuff, prevents redeposition, foamless, also usable in dyebath	aftersoaping agent for fast- ness improvement of reactive dyeings and printings		

# AFTERTREATMENT AGENTS

#### Cellulose

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PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESAL SR	extra			
Ionicity Substrate	anionic cellulosics	combination of a nitrogen derivative with polycarboxylic acid, alkyl aryl sulfonate and inorganic salts bluesign*	promotes the removal of	aftersoaping agent for fast- ness improvement of reactive dyeings and printings
Silk				
PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESAL SL	F			
Ionicity Substrate	cationic silk	quaternised ethoxylated alkylamines	excellent dispersing pow- er, outstanding reserving effect, low foam formation, improves fabric touch	soaping agent for wool and silk fabrics printed with acids and premetallised dyestuffs
ZETESAL FP	0			
Ionicity Substrate	cationic silk	bluesign Eco logic!	improves wet fastness, especially water and per- spiration, formaldehyde-free, GOTS-certified	fixing agent for fastness improvement of acid dyeings
Wool				
PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
DEPICOL KD				
Ionicity	non-ionic	mixture of surfactants with	dispersing, sequestering	aftersoaping agent for fast-
Substrate	wool	additives and solvents	agent, promotes the re- moval of non-fixed dyestuff, prevents redeposition	ness improvement
PROTELAN I	JV-W			
Ionicity Substrate	anionic wool	benzotriazole sulphonate derivative	improves light fastness, reduces fibre yellowing; no influence on shade, wet fastness and handle	improves light fastness of wool

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# CARPET COLOURATION

PRODUC	Г	CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESIST ( lonicity Substrate	cationic polyamide	quaternary ammonium compound	very good reserving effects when used in alkaline print- ing pastes	reserving agent for displace- ment printing on polyamide carpets, also for acid ground dyes and acid printing dyes
ZETESAL N Ionicity Substrate	<b>T</b> anionic polyamide	polycondensation product of aromatic sulphonic acids  bluesign  APPROVED	very good reserving effects when used in printing pastes, no yellowing of white	highly efficient reserving agent for the colour resist process
ZETESAL M Ionicity Substrate	non-ionic polyamide, wool	alkylamine ethoxylate bluesign APPROVED	reduces the absorption rate, migration-promoting, good wetting and dispers- ing properties, no selective influence on dyestuff yield, low-foaming	levelling compound for the space dyeing method applied to polyamide and wool
SETAVIN Karalonicity Substrate	non-ionic polyamide	alkylamine ethoxylate bluesign	lowers the absorption rate in the heating-up phase, improves the migration, no influence on dyestuff yield	levelling and dispersing agent for dyeing with acid, 1:2 metal complex and strongly acid dyestuffs as well as reactive
SETAVIN PI lonicity Substrate	anionic polyamide	alkyl aryl sulphonate	high affinity for the fibre, thus lowering the absorp- tion rate even in the dyeing of polyamide fibres with high dyestuff affinity, excellently covers materi- al irregularities, powerful migration promotion, good wetting effect	excellent levelling agent for the dyeing of polyamide carpets with acid dyestuffs below boiling temperature
SETAVIN PA lonicity Substrate	anionic polyamide	combination of alkylamine ethoxylates and alkyl benzene sulphonates  bluesign  APPROVED	reduces the absorption rate during the heating-up phase, levels out affinity differences on the fibre, reduces barriness; good migrating, wetting and dis- persing effects	levelling agent for the dyeing of polyamide carpets

# CARPET COLOURATION

PRODUC <sup>*</sup>	Г	CHEMISTRY	CHARACTERISTICS	APPLICATION
CEFAFROS	TAFW			
Ionicity Substrate	anionic polyamide	combination of fatty acid conden- sation product and fatty alcohol ethoxylate	prevention of frosting ef- fects by generating a fine-pored foam in an acid or alkaline pH range, excel-	anti-frosting agent for contin- uous dyeing and printing
			lent wetting effects, thus no extra use of a wetting agent necessary; GOTS-certified	

# MISCELLANEOUS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION			
ZS-CLEANR	ZS-CLEANREDOX FOS						
Ionicity Substrate	- polyester	bluesign Eco logic!	odourless, free of sulphite, low sewage water pollution, not self-igniting	ecological reducing agent for reduction clearing of polyester			
ZETESAN O	LE						
Ionicity Substrate	cationic polyester	combination of quaternary com- pounds and polyglycol ethers	dispersing, prevents deposits of oligomers in packages and on machinery walls	oligomer remover and ma- chinery cleaner			
RETENTOL	BGA						
Ionicity Substrate	anionic polyacrylo- nitrile	combination of organic derivates of sulphur	restores the dyeability of saturated PAC fibres	unlocking, discharging agent for PAC			
PROTELAN	ASA						
Ionicity Substrate	anionic wool	solution of a mixture of organic activators	preserves tensile strength and elongation properties of wool fibres, improves spin- ning behaviour, preserves a soft touch	protective agent to avoid deterioration during dyeing of wool mainly for staple and combed sliver			
PROTELAN PFA							
Ionicity Substrate	non-ionic wool, wool/ polyester	polyalcohol esters	preserves tensile strength and elongation properties of wool fibres, improves spinning behavior, pre- serves a soft touch	protective agent for the dyeing of wool and wool/poly- ester at high temperatures up to 100 °C			

# SOFTENERS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
CEFASOFT	NI			
Ionicity Substrate	non-ionic all	fatty acid condensation product	free of yellowing, jet-stable, applicable in combination with optical brighteners, GOTS-certified	all kinds of fibres, white goods, additive for easy-care finish, pad application
CEFASOFT	MIS			
lonicity	non-ionic/ cationic	amino group-modified silicone microemulsion	excellent soft touch, imparts elasticity and voluminous	all kinds of fibres, additive for easy-care finish
Substrate	all		handle, GOTS-certified	
CEFASOFT	MST			
lonicity	non-ionic/ cationic	amino group-modified silicone microemulsion	soft touch, cost-effective	all kinds of fibres, pad and exhaust application
Substrate	all			
CEFASOFT	SMA			
Ionicity	non-ionic/ cationic	amino group-modified silicone macroemulsion	permanent to washing, excellent soft touch, imparts	all kinds of fibres, additive for easy-care finish, pad
Substrate	all		elasticity and smoothness	application
CEFASOFT	SHD			
Ionicity	non-ionic	modified siloxanes	imparts special soft touch	cellulosic fibres and polyam-
Substrate	cellulosics,	bluesign	and hydrophilicity, dyeable,	ide, for terry towels, sports
	polyamide,	APPROVED	especially stable in all pro-	clothing and yarn application
	polyester		cesses, GOTS-certified	
CEFASOFT	MSR			
Ionicity	non-ionic/	amino group-modified reactive	very permanent to wash-	all kinds of fibres, additive
	cationic	silicone microemulsion	ing, imparts elasticity and	for easy-care finish, pad and
Substrate	all	bluesign	stretch recovery, excellent	exhaust application
		APPROVED	soft handle	
CEFASOFT	PED			
lonicity	non-ionic	polyethylene dispersion	softener and additive for	all kinds of fibres, additive for
Substrate	all	bluesign APPROVED	easy-care finish, improves sewability of knitted fabric as well as tensile and tear	easy-care finish, improves sewability
			strength	

# SOFTENERS

PRODUC	Т	CHEMISTRY	CHARACTERISTICS	APPLICATION					
CEFASOFT	CEFASOFT MAC								
lonicity	non-ionic/ cationic	amino group-modified silicone macroemulsion	softener and additive for easy-care finish, imparts	all kind of fibres, additive for easy-care finish, pad and					
Substrate	all		elasticity and voluminous touch	exhausting application					
CEFASOFT	GW								
Ionicity	non-ionic	fatty acid condensation product	no yellowing, imparts very	all kinds of fibres, knitwear,					
Substrate	all	and polyethylene	high lubricity (improves sew- ability), GOTS-certified	raising, white goods, pad application					
CEFASOFT	NEX								
lonicity	weakly	amino-functional	no foaming, very soft and	for wool, silk, acrylic fibres					
	cationic	polysiloxane	woolly touch, good washing	and their blends					
Substrate	wool, silk,		resistance						
	polyacrylo-								
	nitrile								
CEFASOFT	МС								
Ionicity	non-ionic/	amino group modified silicone	concentrated product for	concentrate					
	cationic	microemulsion	manufacturing "ready-to-						
Substrate	all		use" softeners, GOTS-certi-						
			fied ( → CEFASOFT MIS)						



# SOFTENERS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ADULCINOL	GV			
Ionicity Substrate	cationic all	fatty acid condensation product, polyethylene and paraffin bluesign	stable in jets, reduces fibre-metal friction, imparts very high lubricity, GOTS-certified	all kinds of fibres, knitwear, raising exhaust process
ADULCINOL	EB20			
Ionicity Substrate	weakly cationic wool, silk, polyacrylo-	bluesign Eco logic!	good resistance to yellow- ing, good antistatic power, AEEA-free, GOTS-certified	for wool, silk, acrylic fibres and their blends
	nitrile			
ADULCINOL	ALD			
Ionicity Substrate	cationic wool, poly- acrylonitrile	fatty acid condensation product	no foaming, soft and woolly touch, GOTS-certified	for acrylics, wool and their blends
ADULCINOL	T7531			
Ionicity	cationic	quaternary ammonium	soft touch, good antistatic	for natural, artificial and
Substrate	all	bluesign Eco logic!	power, low foam formation, GOTS-certified	synthetic fibres
ADULCINOL	BML			
lonicity Substrate	cationic wool	fatty acid condensation product	no foaming, soft and woolly touch, good antistatic power, increases lubricity	

# SOFTENERS

PRODUC	Г	CHEMISTRY	CHARACTERISTICS	APPLICATION
ADULCINO	_ ET			
lonicity Substrate	cationic wool, silk, polyacrylo- nitrile	fatty acid condensation product and silicone	no foaming, soft and woolly touch, increases lubricity	for wool, silk, acrylic fibres and their blends
ADULCINO	L AMS			
Ionicity	cationic	fatty acid condensation product	no foaming, very soft touch,	for wool, silk, acrylic fibres
Substrate	wool, silk, polyacrylo- nitrile	and silicone	increases lubricity	and their blends



# WATER AND OIL REPELLENTS

#### Fluorocarbons

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION			
ANTHYDRIN SC							
lonicity Substrate	slightly cationic all	bluesign APPROVED	free of solvents, no influence on the touch of goods; based on C6 chemistry, LAD				
ANTHYDRIN	SCE						
lonicity Substrate	slightly cationic all	fluorocarbon resin  bluesign* APPROVED	free of solvents, no influ- ence on the touch of textiles, designed for especially good water repellency, based on C6 chemistry	durable water- and oil-re- pellent finishing, especially for natural fibres and their blends			
ANTHYDRIN Ionicity	slightly cationic	fluorocarbon resin	free of solvents, curing is possible at temperatures of	durable water- and oil-repel- lent finishing, low-tempera-			
Substrate	all		approx. 100 – 110 °C, based on C6 chemistry	ture curing			

# WATER AND OIL REPELLENTS

PRODUC	Т	CHEMISTRY	CHARACTERISTICS	APPLICATION
ANTHYDRI	N VSA			
lonicity	slightly cationic	fluorinecarbon resin	free of solvents, no influence on the touch of goods, low-	durable water- and oil-repel- lent finishing, especially for
Substrate	wool, silk		temperature curing, based on C6 chemistry	wool and silk fibres and their blends



# FLUORO-FREE WATER REPELLENTS

PRODUC	т	CHEMISTRY	CHARACTERISTICS	APPLICATION			
ANTHYDRI	ANTHYDRIN PSZ conc						
lonicity	slightly cationic	hydrocarbon compound and zirconium salts	free of solvents, soft and pleasant touch	non-permanent, water- repellent finishing, especially			
Substrate	all			for natural fibres and their blends			
ANTHYDRI	N DNF						
lonicity	cationic	functionalised polymer	fluorine-free, durable,	fluorine-free, durable,			
Substrate	all		soft and pleasant touch	water-repellent finishing, especially for synthetic fibres and their blends			
ANTHYDRI	N FF one						
lonicity	non-ionic	liquid silicone emulsion	fluorine-free, based on a	fluorine-free, water-repellent			
Substrate	all	Eco logic!	liquid silicone emulsion, single product	finishing agent for all kinds of fibres, durable to washing by using a cross-linking agent			

## FLAME RETARDANTS

PRODUCT	Γ	CHEMISTRY	CHARACTERISTICS	APPLICATION
FLAMMEX I Substrate	<b>LF</b> synthetics	inorganic phosphorus compound	not permanent, fogging-free	flame-retardant finish for synthetic fabrics
FLAMMEX I Substrate	polyester	organic phosphorus compound	permanent, no thermofixa- tion necessary, no reductive cleaning necessary	flame-retardant finish for polyester
FLAMMEX	APP			
Substrate	all	inorganic phosphorus and nitro- gen compound	low water solubility	flame-retardant finish for combination with dispersions



# DISPERSIONS

#### Polyurethanes

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION	
POLAPPRET	PU-DM				
Ionicity	non-ionic	polyurethane	very soft dispersion, hydro-	filling and stiffening agent,	
Substrate	all	bluesign	philic, antipilling finish, near-	antipilling	
		APPROVED	ly no influence on handle		
POLAPPRET	OLAPPRET PU-H				
lonicity	anionic	polyurethane	imparts a hard, elastic	filling and stiffening agent	
Substrate	all		handle		
POLAPPRET	PU-S				
lonicity	anionic	polyurethane	soft, elastic handle	filling and stiffening agent,	
Substrate	all	bluesign <sup>®</sup>		binder for Triple Fresh	

#### Polyacrylates

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
POLAPPRET Ionicity Substrate	AC-S non-ionic all	polyacrylate copolymer	soft handle, self-crosslink-ing, durable to washing	filling agent
POLAPPRET Ionicity Substrate	non-ionic	polyacrylate copolymer	stiff but elastic handle, self- crosslinking, permanent to washing	filling and stiffening agent

# DISPERSIONS

Zschimmer & Schwarz | Textile Auxiliaries

#### Polyvinyl acetates

PRODUC	Т	CHEMISTRY	CHARACTERISTICS	APPLICATION
POLAPPRE	T HW			
lonicity	slightly anionic	polyvinyl acetate copolymer	very soft handle, perma- nent to washing, self-	filling agent, selvedge adhesive
Substrate	all		crosslinking	
POLAPPRE	T VAC-H			
Ionicity	slightly	polyvinyl acetate copolymer	filling finish imparting a	filling and stiffening agent,
	anionic		relatively hard handle	selvedge adhesive
Substrate	all			
POLAPPRE	T HNH			
Ionicity	non-ionic	polyvinyl acetate	very stiff handle, not	filling and stiffening agent
Substrate	all	bluesign Eco logic!	permanent to washing	



Zschimmer & Schwarz | Textile Auxiliaries

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# PRODUCTS FOR BACK COATING OF TUFTED CARPETS

PRODUCT	CHEMISTRY	CHARACTERISTICS	APPLICATION
ELACTIV 1307 Ionicity anionic Substrate polyamide	carboxylic acid and polymers	meets requirements accord- ing to EN 1307 (after spray extraction cleaning), no effect on delamination	antistatic agent for latex back coating of tufted carpets and needle felt
ELACTIV KH Ionicity anionic Substrate polyamide	carboxylic acid and polymers	no effect on delamination and bonding of tufts	antistatic agent for latex back coating of tufted carpets and needle felt
ELACTIV KE Ionicity anionic Substrate polyamide	carboxylic acids	no effect on delamination and bonding of tufts	antistatic agent for latex back coating of tufted carpets and needle felt
FLEROGUM FC Ionicity anionic Substrate synthetics	sulphosuccinate	decreases surface tension of latex compounds for better wetting of the pile	wetting agent for latex back coating of tufted carpets and needle felt
FLEROGUM B4 Ionicity - Substrate all	amphoteric surfactants  bluesign  APPROVED  Eco logic!	yarn universally applicable foam additive	stabiliser and foamer for latex foam back coating of tufted carpets and needle felt

# DEFOAMER

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
CONTRIPON	MD			
Ionicity	non-ionic	hydrocarbons	concentrated product for all	foam-killing, -reducing and
Substrate	all	bluesign	purposes, free of silicone	-preventing
		APPROVED		
CONTRIPON	W-P			
lonicity	non-ionic	polysiloxane	concentrate, stable in stor-	foam-killing, -reducing and
Substrate	all		ing, universal application	-preventing
CONTRIPON	S			
Ionicity	non-ionic	modified polysiloxane	defoamer with outstanding	foam-killing, -reducing and
Substrate	all	emulsion	shear, temperature and pH	-preventing
		bluesign	stability	
		APPROVED		
CONTRIPON	BD			
Ionicity	non-ionic	combination of plant oils	very good biodegradabili-	foam-killing, -reducing and
Substrate	all	and emulsifiers	ty, free of silicone oils and	-preventing
		bluesign Eco logic!	mineral oils	
		APPROVED		

# CROSSLINKER

PRODUC	Т	CHEMISTRY	CHARACTERISTICS	APPLICATION
POLAPPRE	T VIB			
lonicity	-	formaldehyde-free	deblocks at 150 °C	crosslinker for polyacrylate-
Substrate	all	blocked isocyanate		polyurethane dispersions and
				fluorocarbons
POLAPPRE	T HST			
lonicity	-	blocked isocyanate	formaldehyde-free, stable	crosslinker for dispersions
Substrate	all		to yellowing	and pigment printing

# SPECIAL FINISHING PRODUCTS

PRODUCT	CHEMISTRY	CHARACTERISTICS	APPLICATION
CEFATEX PE Ionicity non-ionic Substrate polyester	hydrophilic copolymer  bluesign  APPROVED  Eco logicl	improves wearing comfort by improving touch, hydrophilic properties and elasticity, better moisture transmission, antistat- ic properties, lower soil redeposition, easier stain removal	hydrophilic treatment for PES and mixtures with cotton or wool
CEFATEX PAM Ionicity non-ionic Substrate polyamide	aqueous preparation of hydrophilic polymers  bluesign  APPROVED  Eco logicl	improves hydrophilicity of aftertreated hydropho- bic polyamide, antistatic properties, better moisture transmission	hydrophilic treatment for synthetics, especially PA
VOLTURIN TP 3000 Ionicity anionic Substrate synthetics	alkyl phosphate  bluesign  APPROVED	antistatic agent especially for synthetics	synthetic fibres, pad application
SANFOROL TC Ionicity anionic Substrate cotton	ester sulphonate and polyethylene	sanforising agent with very good softening and smooth- ing properties for cellulose fibres and their blends with synthetics	CO and CO blends
CARBOLAN DL Ionicity anionic	polyacrylate	thickens in alkaline medium	thickener for coatings
Substrate all  CARBOLAN SAB  Ionicity non-ionic  Substrate all	natural organic polymer	(pH 8 – 10) thickens in acidic medium (pH 5)	high viscosity thickening agent suitable for space dyeing and carpet printing
CARBOLAN RE Ionicity anionic Substrate cellulosics	sodium alginate	use in stock thickener solu- tion with OPTAVON A and water	thickener for printing on cellulose fibres with reactive dyes

# SPECIAL FINISHING PRODUCTS

PRODUC	•	CHEMISTRY	CHARACTERISTICS	APPLICATION
<b>DUROZELL</b> lonicity		monoethanolamine sulphite and	chemical fixing of wool,	wool fibres, pad application
Substrate	wool	additives	anti-crease power, reduces pilling	
SILSOL S2	30			
lonicity	cationic	colloidal silica in aqueous	high cohesion power, im-	anti-slipping agent for wool,
Substrate	wool, silk,	dispersion	proves adhesiveness	silk and viscose
	viscose		between threads, special	
			touch for silk and viscose	



# CERTIFICATES/COMPLIANCES

PRODUCT	BLUESIGN	GOTS	ZDHC*	STANDARD 100 BY OEKO-TEX**
ADULCINOL ALD			$\nabla$	▼
ADULCINOL AMS			$\nabla$	▼
ADULCINOL BML			$\nabla$	▼
ADULCINOL EB20	▼ /		$\nabla$	▼
ADULCINOL ET			$\nabla$	▼
ADULCINOL GV	▼	▼	▼	▼ /
ADULCINOL T7531	▼		$\nabla$	<b>*</b>
ALKASET AOB			$\nabla$	▼
AMPHOTEX MB23			$\nabla$	▼
ANTHYDRIN DNF	▼		$\nabla$	▼
ANTHYDRIN FF ONE			$\nabla$	▼
ANTHYDRIN NK6			$\nabla$	▼
ANTHYDRIN PSZ CONC			$\nabla$	▼
ANTHYDRIN SC	▼		$\nabla$	▼
ANTHYDRIN SCE	▼		$\nabla$	▼
ANTHYDRIN VSA			$\nabla$	▼
CARBOLAN DL			$\nabla$	▼
CARBOLAN RE			$\nabla$	▼
CARBOLAN SAB			$\nabla$	▼
CEFAFROST AFW		▼	▼	▼
CEFAMIG MP			$\nabla$	▼
CEFAPAD WAT	▼		▼	▼
CEFASOFT GW		▼	$\nabla$	▼
CEFASOFT NI		▼/	$\nabla$	▼
CEFASOFT MAC			$\nabla$	▼
CEFASOFT MC		▼	$\nabla$	▼
CEFASOFT MIS		▼	▼	▼
CEFASOFT MSR	▼		▼	▼
CEFASOFT MST			$\nabla$	▼
CEFASOFT NEX			$\nabla$	▼
CEFASOFT PED	▼		$\nabla$	▼
CEFASOFT SHD	▼	▼	▼	▼
CEFASOFT SMA			$\nabla$	▼
CEFATEX ENN	▼	▼	▼	▼ /
CEFATEX PAM	▼		▼	▼

<sup>\*</sup>  $\nabla$  Products comply with ZDHC MRSL

# CERTIFICATES/COMPLIANCES

PRODUCT	BLUESIGN	GOTS	ZDHC*	STANDARD 100 BY OEKO-TEX**
CEFATEX PE	▼		▼	▼
CELLANA GB			$\nabla$	▼
CELLANA PRS			$\nabla$	▼
CELLANA RV			$\nabla$	▼
CELLANA VAW			$\nabla$	▼
CONDISOL GP			$\nabla$	▼
CONTRIPON BD	▼	▼	$\nabla$	▼
CONTRIPON MD	▼		$\nabla$	▼
CONTRIPON S	▼	▼	▼	▼
CONTRIPON W-P		▼	▼	▼
DEPICOL KD			$\nabla$	▼
DEPICOL ND			▼	▼
DUROZELL FL			$\nabla$	▼
ELACTIV KE			$\nabla$	▼
ELACTIV KH			$\nabla$	▼
ELACTIV QD25			$\nabla$	▼
ELACTIV 1307			$\nabla$	▼
ENSIMOL BC			$\nabla$	▼
ENSIMOL KW conc		▼	▼	▼
ENSIMOL PB6			$\nabla$	▼
ENSIMOL WAX			$\nabla$	▼
FLAMMEX APP			$\nabla$	▼
FLAMMEX LCP			$\nabla$	▼
FLAMMEX LF			$\nabla$	▼
FLEROGUM B4	▼		$\nabla$	▼
FLEROGUM FC	▼		$\nabla$	▼
FLEROL BW			$\nabla$	▼
FLEROL FNE			$\nabla$	▼
FLEROL CS 45			$\nabla$	▼
FLEROL KFN conc			$\nabla$	▼
FLEROL KFC	▼	▼	$\nabla$	▼
FLEROL MX21			$\nabla$	▼
FLEROL PLM			$\nabla$	▼ /
FLEROL PP			$\nabla$	▼ /
KATAMIN BW 3.0	▼	▼	•	▼/

<sup>▼</sup> Registered with ZDHC Chemical Gateway

\*\*▼ Products comply with classes I - IV

# CERTIFICATES/COMPLIANCES

PRODUCT	BLUESIGN	GOTS	ZDHC*	STANDARD 100 BY OEKO-TEX**
KATAMIN EP			$\nabla$	▼
KATAMIN GV			$\nabla$	▼
KATAMIN UNI	▼	▼	▼	▼
LUBATEX A25			$\nabla$	▼
LUBATEX ECS	▼	▼	▼	▼
LUBATEX LV conc	▼	▼	▼	▼ /
LUBATEX RUN	▼	▼	$\nabla$	▼
LUBATEX SZ conc			$\nabla$	▼
NEWALOL CL			$\nabla$	▼
NEWALOL PFN	▼	▼	▼	▼
NEWALOL SPEZIAL			$\nabla$	▼
OPTAVON BAS	▼	▼	$\nabla$	▼
OPTAPHOR BA liq 01	▼	▼	$\nabla$	▼
OPTAPHOR BA-B liq				
OPTAPHOR BBU liq 01	▼	▼	$\nabla$	▼
OPTAPHOR BRU liq	▼	▼	$\nabla$	▼
OPTAPHOR PAW liq	▼		$\nabla$	▼
OPTAVON CL			$\nabla$	▼
OPTAVON DSQ			$\nabla$	▼
OPTAVON F liq			$\nabla$	▼
OPTAVON LTB	▼		▼	▼
OPTAVON MEL	▼	▼	$\nabla$	▼
OPTAVON MEX	▼	▼ /	▼	▼
OPTAVON NW	▼	▼ /	▼	▼
OPTAVON SV	▼	•	▼	▼
OPTAVON 4UD	▼	▼	▼	▼
PROTELAN AF			$\nabla$	▼
PROTELAN ASA			$\nabla$	▼
PROTELAN AY			$\nabla$	▼
PROTELAN ATY-P	▼		$\nabla$	▼
PROTELAN CEL			▼	▼
PROTELAN CF 2	▼	▼	▼	▼
PROTELAN LG 55			$\nabla$	▼
PROTELAN LGA	▼	▼	▼	▼
PROTELAN LGE	<b>V</b>		$\nabla$	▼

<sup>\* ▼</sup> Products comply with ZDHC MRSL

# CERTIFICATES/COMPLIANCES

PROTELAN PFA  PROTELAN PSP conc  PROTELAN UV-PA  PROTELAN UV-PE  PROTELAN UV-TH  PROTELAN UV-W  POLAPPRET AC-S  POLAPPRET HNH  POLAPPRET HST  POLAPPRET NA	ARD 100 (O-TEX**
PROTELAN PSP conc  PROTELAN UV-PA  PROTELAN UV-PE  PROTELAN UV-TH  PROTELAN UV-W  POLAPPRET AC-S  POLAPPRET HNH  POLAPPRET HST  POLAPPRET NA  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼	▼
PROTELAN UV-PA  PROTELAN UV-PE  PROTELAN UV-TH  PROTELAN UV-W  POLAPPRET AC-S  POLAPPRET HNH  POLAPPRET HST  POLAPPRET HW  POLAPPRET NA	▼
PROTELAN UV-PE  PROTELAN UV-TH  PROTELAN UV-W  POLAPPRET AC-S  POLAPPRET HNH  ▼  POLAPPRET HST  POLAPPRET HW  POLAPPRET NA  ▼  TO NOTE IN THE POLAPPRET NA  TO NOTE	▼
PROTELAN UV-TH  PROTELAN UV-W  POLAPPRET AC-S  POLAPPRET HNH  ▼  POLAPPRET HST  POLAPPRET HW  POLAPPRET NA  ▼  TO  TO  TO  TO  TO  TO  TO  TO  TO	▼
PROTELAN UV-W  POLAPPRET AC-S  POLAPPRET HNH  ▼  POLAPPRET HST  POLAPPRET HW  POLAPPRET NA  ▼  TO  TO  TO  TO  TO  TO  TO  TO  TO	▼
POLAPPRET AC-S  POLAPPRET HNH  ▼  POLAPPRET HST  POLAPPRET HW  POLAPPRET NA  ▼  TO  TO  TO  TO  TO  TO  TO  TO  TO	▼
POLAPPRET HNH  POLAPPRET HST  POLAPPRET HW  POLAPPRET NA  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼	▼
POLAPPRET HST  POLAPPRET HW  POLAPPRET NA	▼
POLAPPRET HW   POLAPPRET NA	▼
POLAPPRET NA $\nabla$	▼
	▼
POLAPPRET PU-DM ▼ ▽	▼
	▼
POLAPPRET PU-H	▼
POLAPPRET PU-S ▼ ▽	▼
POLAPPRET VAC-H	▼
POLAPPRET VIB	▼
REDUSCOUR SILK	<b>V</b>
REDUSTAB KOS ▼ ▽	<b>T</b>
REDUSTAB OS ▼ ▼	▼
REDUSTAB SWB	
REDUZIN WO   ▽	▼
RETENTOL BGA	▼
SANFOROL TC $\nabla$	▼
SETACID AB conc	▼
SETACID PAS	<b>V</b>
SETAVIN CNA $\nabla$	▼
SETAVIN DF	▼
SETAVIN KE ▼ ▼ ▽	▼
SETAVIN KS	▼
SETAVIN LNY	▼
SETAVIN LSP	▼
SETAVIN MIG	▼ /
SETAVIN MSN	▼ /
SETAVIN PA	▼/

<sup>▼</sup> Registered with ZDHC Chemical Gateway

\*\*▼ Products comply with classes I - IV

# CERTIFICATES/COMPLIANCES

PRODUCT	BLUESIGN	GOTS	ZDHC*	STANDARD 100 BY OEKO-TEX**
SETAVIN PE	▼	▼	▼	▼
SETAVIN PNT			▼	▼
SETAVIN RCO	▼	▼	▼	▼
SETAVIN RE			$\nabla$	▼
SETAVIN RWP			$\nabla$	▼
SETAVIN SU-E	▼		▼	▼ /
SETAVIN TAPE conc			$\nabla$	<b>y</b>
SETAVIN TTLB			$\nabla$	
SETAVIN ZA	▼		$\nabla$	▼
SETAVIN 3D	7		$\nabla$	▼
SILSOL S230			$\nabla$	▼
SILSOL 130			$\nabla$	▼
SILSOL 330			$\nabla$	▼
SINCAL F		▼	$\nabla$	▼
SINCAL MARS FLAKES			$\nabla$	▼
SUPRALAN LMW			$\nabla$	▼
SUPRALAN FZB			$\nabla$	▼
TISSOCYL CFD CONC			$\nabla$	▼
TISSOCYL CT			$\nabla$	▼
TISSOCYL DLF	▼		▼	▼
TISSOCYL JT			$\nabla$	▼
TISSOCYL NMP	▼	▼ /	$\nabla$	▼
TISSOCYL POW			$\nabla$	▼
TISSOCYL RC 9	▼	▼/	▼	▼
TISSOCYL RLB	▼		▼	▼
TISSOCYL TBL			$\nabla$	▼
TORSINOL ZSB	▼		$\nabla$	▼
VOLTURIN LH05			$\nabla$	▼
VOLTURIN T05			$\nabla$	▼
VOLTURIN TP 3000	▼		$\nabla$	▼
ZETESAL CCL	▼	▼	▼	▼
ZETESAL CPW	▼		▼	▼
ZETESAL F CONC	▼		▼	▼
ZETESAL FAP	▼	▼	▼	▼ /
ZETESAL FIX	▼	▼	▼	▼

<sup>\* ▼</sup> Products comply with ZDHC MRSL

# CERTIFICATES/COMPLIANCES

PRODUCT	BLUESIGN	GOTS	ZDHC*	STANDARD 100 BY OEKO-TEX**
ZETESAL FPO	▼		$\nabla$	▼
ZETESAL FSA			$\nabla$	▼
ZETESAL LTS	▼	▼	▼	▼
ZETESAL MSN			$\nabla$	▼
ZETESAL NPC	▼	▼	▼	▼
ZETESAL NR	▼		▼	▼
ZETESAL NR gold +	▼		▼	▼
ZETESAL NR gold + liq	▼		▼	▼
ZETESAL NS			$\nabla$	▼
ZETESAL NT	▼		▼	▼
ZETESAL NWM	▼	▼	▼	▼
ZETESAL SLF			$\nabla$	▼
ZETESAL SR extra	▼	▼	▼	▼
ZETESAL TCS	▼		▼	▼
ZETESAL WER	▼	▼	$\nabla$	▼
ZETESAL 2000	▼	▼	▼	▼
ZETESAN DAV			$\nabla$	▼
ZETESAN DHT	<b>V</b>		$\nabla$	▼
ZETESAN DN			$\nabla$	▼
ZETESAN KA	▼		$\nabla$	▼
ZETESAN OLE			▼	▼
ZETESAN 3D			$\nabla$	▼
ZETESIST CD	▼		▼	▼
ZS-CLEANREDOX BFW			$\nabla$	▼
ZS-CLEANREDOX FOS	▼	•	▼	▼
ZS-DYESET RFT	•	•	▼	•
ZS-ECOCARRIER CAB	▼		▼	▼

<sup>▼</sup> Registered with ZDHC Chemical Gateway

\*\*▼ Products comply with classes I - IV



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