



# PRODUCT OVERVIEW FOR TEXTILE AUXILIARIES

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### LUBRICANTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
CELLANA R	RV			
lonicity Substrate	anionic/ non-ionic wool, cashmere	combination of ethoxylates derivates and 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 P	PRS			
Ionicity Substrate	anionic wool, cashmere	combination of fatty acids 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 V	/AW			
Ionicity 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	С			
Ionicity Substrate	non-ionic all	bluesign APPROVED  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 Ionicity Substrate	anionic wool	combination of fatty acids 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 MX Ionicity Substrate	anionic wool	combination of fatty acids derivates  bluesign  APPROVED  Ecologic!	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 requested

### LUBRICANTS AND ADDITIVES

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
FLEROL PLM Ionicity Substrate	anionic wool	combination of fatty acids 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 from honey dew	
VOLTURIN TO 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 LI lonicity 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 Ionicity Substrate	cationic	derivate of amine quaternizated	very good antistatic proper- ties, dust binding, non-yel- lowing	antistatic agent for acrylic fibres; for open-end spinning
CONDISOL Gollonicity 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 lonicity Substrate	anionic wool	colloidal silica in acqueous 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 acqueous dispersion	high cohesion power, improves adhesiveness between threads, pre- serves the hand of fabrics	high cohesion agent for natural fibres and their blends; for all spinning processes

### LUBRICANTS 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	
FLEROL CS	45			
Ionicity	anionic	combination of fatty acids	free of mineral oils, well	lubrication of raw wool after
Substrate	wool	and polyoxyethylene	balanced lubricity, cohesion and antistatic properties, non-yellowing	washing in combing process
<b>VOLTURIN T</b>	05			
Ionicity	anionic	combination of alkylphos-	excellent antistatic effect,	antistatic agent for spinning
Substrate	all	phate 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 AND WEAVING

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

### WET PARAFFINATING AGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION				
KATAMIN B	KATAMIN BW 3.0							
lonicity Substrate	anionic cotton, poly- acrylonitrile	polyethylene, paraffin, fatty alcohol and emulsifiers  bluesign  APPROVED  Eco logic!	high yarn lubricity and anti-electrostatic property, low amount of paraffins, non-resinifying at higher temperatures, retains hydro- philic nature of cotton, GOTS certified	for yarns made of cellulosic fibres and their mixtures with synthetic fibres, acrylic yarns				
KATAMIN U	NI							
lonicity Substrate	cationic all	paraffin and emulsifiers  bluesign  APPROVED	very high lubricity and anti-electrostatic property, uniform distribution over the whole bobbin, easy handling, excellent smoothness, GOTS certified	universal application to yarns of all fibre types				
KATAMIN G	v							
lonicity Substrate	cationic all	polyethylene, paraffin, fatty acid condensation products	combination of softening and smoothing agents, bulky handle, good anti-electro- static property	for yarns of all fibre types				
KATAMIN E	P							
Ionicity Substrate	non-ionic wool	paraffin emulsion	high yarn lubricity property, non-resinifying at higher temperatures	carded spinning of wool and its blends with synthetic fibres for knitted yarn				



### WARP WAXING/ COLD SIZING AGENTS

**PRODUCT CHEMISTRY APPLICATION** CHARACTERISTICS .....

#### **ENSIMOL KW conc**

Ionicity non-ionic Substrate synthetics

polyglycol ether and fatty alcohol ethoxylate



warp waxing agent with excellent anti-electrostatic properties, good dust binding capability, very easy to remove by washing, GOTS certified

synthetic fibres and their mixtures

universally applicable to all

#### **ENSIMOL WAX**

Ionicity non-ionic Substrate all

fatty acid ethoxylate and special additives

warp waxing agent with excellent smoothing proper- types of fibres ties, reduces the tendency of the threads to hook to each other and facilitates the shed formation, very easy to

remove by washing

#### **ENSIMOL PB6**

Ionicity anionic Substrate cotton,

polyester

tistatic agents and selected additives

oxyethylated derivatives, an- high cohesion properties, not sticky, good lubricant and antistatic power, does not turn yellow or develop bad odours, easily washable

in normal desizing processes

cold sizing agent for artificial, synthetic fibers and their blends

#### **ENSIMOL BC**

Ionicity Substrate anionic wool

polymer with high molecular warp waxing agent with

weight

good antistatic properties, reduces the formation of dust deposits, easly removable by washing

wool fibres and their blends

### LUBRICANTS TEARING PROCESSES

PRODUCT CHARACTERISTICS **APPLICATION** CHEMISTRY

#### **CELLANA GB**

Ionicity non-ionic Substrate all

ethoxylates

hydrocarbons and fatty acid mineral oils lubricant, good suppleness and lubricity, dust binding, non-resinifying

universally applicable to all types of fibres

and corrosion inhibiting

## SEQUESTERING AGENTS/ WATER TREATMENT

PRODUCT **CHEMISTRY CHARACTERISTICS APPLICATION** ••••••••••• ••••• **OPTAVON 4UD** Ionicity anionic organic phosphorus strong acid complexing acid demineralisation, Substrate and carboxylic acid comcotton, linen agent with excellent sebleaching, neutralising pound questering properties, very bluesign\* good stabilising effect in per-APPROVED oxide bleaching, key product for OPTABLEACH, GOTS certified **OPTAVON NW** anionic highly efficient complexing Ionicity organic phosphorus comdesizing, removal of lubri-Substrate all pound and dispersing agent with cants, alkaline scouring, an excellent binding of calbleaching, water correction bluesign\* APPROVED cium, magnesium and iron ions, supports the deterging effect of surfactants, prevents silicate deposits on machinery parts, GOTS certified **OPTAVON DSQ** Ionicity anionic organic phosphorus comdesizing, removal of lubriuniversally applicable Substrate all pound sequestering agent with an cants, alkaline scouring, excellent soil suspending bleaching, water correction power, very good dispersing behaviour for clay minerals, high iron binding power **OPTAVON SV** Ionicity anionic polyacrylate compound prevents precipitation desizing, removal of lubri-Substrate all caused by hard water, discants, bleaching bluesign\* APPROVED persing of insoluble substances, high soil suspending

power, GOTS certified

### SEQUESTERING AGENTS/ WATER TREATMENT

**PRODUCT CHEMISTRY** CHARACTERISTICS **APPLICATION** 

#### **OPTAVON MEX**

Ionicity anionic Substrate cotton, linen

organic phosphorus and carboxylic acid compound

bluesign APPROVED

excellent sequestering power regarding iron ions and hardness elements, reduction of catalytic damages on the textile goods during hydrogen peroxide bleaching, very good stabilising effect in peroxide bleaching, GOTS certified

acid demineralisation, alkaline scouring, bleaching

#### **OPTAVON MEL**

Ionicity Substrate anionic cotton, linen

•••••••••••

organic phosphorus and carboxylic acid compound

bluesign\* APPROVED

very good sequestering power regarding iron ions 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

acid demineralisation, alkaline scouring, bleaching

#### **OPTAVON FE conc**

Ionicity Substrate

anionic all

combination of polyfunction- water treatment agent for al organic acids





eliminating high iron content scouring of process water or fibres, reduction of catalytic damages to the textile goods

during hydrogen peroxide bleaching, GOTS certified

desizing, bleaching, alkaline

#### **OPTAVON BAS**

Ionicity anionic Substrate all

al organic acids





combination of polyfunction- biodegradable sequestering and complexing agent, free of phosphorus, stabilising agent for hydrogen peroxide bleaching, GOTS certified

desizing, bleaching, removal of lubricants

# SEQUESTERING AGENTS/ WATER TREATMENT

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



### DETERGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
TISSOCYL RI Ionicity Substrate	<b>LB</b> non-ionic all	fatty alcohol ethoxylates 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 DI lonicity Substrate	non-ionic all	fatty alcohol ethoxylates 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 in jet dyeing machines
Ionicity 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
Ionicity  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 peroxide, low foaming, low CSB and BSB values, GOTS certified	ecological detergent for removing oily lubricants from synthetics, bleaching compound for cotton and mixtures
TISSOCYL Relonicity Substrate	c 9 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 January Ionicity Substrate	non-ionic synthetics	combination of non-ionic surfactants	excellent emulsifying of oils, lubricants and warp waxing agents, low foaming	detergent for the removal of oily lubricants from cellulosic and synthetic fibers

# DETERGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
TISSOCYL PO 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 CT lonicity Substrate	r 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 TE lonicity Substrate	BL non-ionic wool	alkylpolyglycolether compound	highly concentrated, good emulsifying power for the greasing of wool, mine- ral and ester oils, waxes and lubricants	special detergent for washing raw wool in combing plant
SUPRALAN I	_MW			
Ionicity Substrate	anionic wool	modified fatty acids ethox- ylates 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 F	7R			
Ionicity Substrate	anionic wool	natural fatty alcohol derivate	very good detergent and emulsifying power, excellent foam stability	wetting, milling and washing agent for fine wool fabrics
AMPHOTEX I	MB23			
lonicity Substrate	amphoteric wool	modified fatty acids	very good detergent and emulsifying power, excel- lent foam stability, biode- gradable	wetting, milling and washing agent for cashmere fibres
SINCAL F lonicity 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 to 12

### WETTING AGENTS

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

### SCOURING AGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION				
SINCAL MAR	SINCAL MARS flakes							
Ionicity	anionic	natural fatty acids	very good emulsifying,	detergent for the degumming				
Substrate	silk		dispersing and rewetting properties	of silk				
REDUSCOUR SILK								
Ionicity	anionic	fatty alcohol ethoxylate and	very good emulsifying,	detergent for the degumming				
Substrate	silk	sequestering agent	dispersing and rewetting properties	of silk				

### BLEACHING COMPOUNDS

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

### BLEACHING STABILISER

	PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
	REDUSTAB O lonicity Substrate	anionic cotton	polyethylene, paraffin, fatty alcohol and emulsifiers	excellent stabilising properties, applicable for discontinuous and continuous peroxide bleaching, very high degree of whiteness, GOTS certified	universal stabiliser for silicate-free peroxide bleaching
	OPTAVON BA	<b>S</b> anionic	paraffin and emulsifiers	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 K	(OS			
The state of the s	lonicity Substrate	anionic wool	polyethylene, paraffin, fatty acid condensation products  bluesign  APPROVED  Eco logic!	excellent stabilising prop- erties, ensures the regular development of oxygen throughout treatment, GOTS certified	stabiliser for peroxide bleaching of wool and silk fibres

### PEROXIDE ACTIVATOR

**PRODUCT CHEMISTRY** CHARACTERISTICS **APPLICATION** 

#### **OPTAVON LTB**

Ionicity non-ionic Substrate cotton

complexing compound bluesign APPROVED

hydrogen peroxide, enables safe and short bleaching processes with highest degrees of whiteness also at temperatures below 80°C, eco-friendly product for environmental protection → key product for COLD-WHITE process

accelerates the activation of peroxide activator for the low temperature bleaching of cotton

### STAIN REMOVERS

**PRODUCT CHEMISTRY** CHARACTERISTICS **APPLICATION** 

#### **DEPICOL ND**

Ionicity Substrate anionic cotton, synthetics

ethoxylate

fatty alcohol and alkyl amine distinctive dispersing and soil suspending power, excellent extraction power with regard to fats and waxes, applicable in bleaching and dyeing processes

solvent-free degreasing and washing agent for the scouring of synthetics and cotton

# ANTI-YELLOWING AGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION	
PROTELAN A	Y				
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, seamless articles	
			exhaustion		
PROTELAN O	· E 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 A	TY-P				
lonicity Substrate	polyamide, polyamide/ elastane	bluesign APPROVED	excellent protection against yellowing during thermoset- ting and molding, maximum degrees of whiteness for optically brightened articles,	anti-yellowing agent designed to reduce yellowing of polyamide and blends with elastane during heat setting and molding	
			suitable for the usage in foam molding processes	•	
PROTELAN O	:FI				
lonicity Substrate	non-ionic cotton/ elastane	combination of fatty alcohol ethoxylates and antioxidants		anti-yellowing agent designed to reduce the thermal yellow- ing of cotton/elastane blends	
PROTELAN LGA					
lonicity 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	

elastane

### ANTI-YELLOWING AGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
PROTELAN	LGE			
lonicity Substrate	anionic polyamide, polyester and blends with elastane	formulation of alkyl aryl sulphonates 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			
lonicity Substrate	anionic polyamide, polyamide/ elastane	formulation of alkyl aryl sulphonates 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	special anti-yellowing agent designed to reduce yellowing of polyamide and polyamide/ elastane tapes during storage
			tape finishing	
PROTELAN	LG 55			
lonicity Substrate	anionic polyamide, polyamide/ elastane	formulation of alkyl aryl sulphonates and special additives	excellent yellowing protection in exhaustion at 40°C and tape application, low odour, pH 5.5 – 6.5 on fabric possible, reduces the danger of spots and brownish discolourations during continuous tape finishing	special anti-yellowing agent designed to reduce stor- age yellowing of polyamide and polyamide/elastane for achieving a neutral pH value on fabric
PROTELAN	LGB			
lonicity Substrate	anionic 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

### DISPERSING AGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESAN DH	Т			
lonicity Substrate	non-ionic polyester	bluesign Eco logic!	excellent dispersing power on disperse dyes and very good levelling action	special dispersing agent for dyeing and aftertreatment of polyester
ZETESAN OL	E			
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-DYESET F	RFT			
lonicity 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 KA				
lonicity Substrate	cationic wool, poly- acrylonitrile	bluesign Eco logic!	excellent dispersing power, improves dyestuff rubbing fastness, reduces unfixed dyestuff on the fibres, GOTS certified	special dispersing agent for dyeing blends of WO/PAC in a single bath
ZETESAN DA	V			
lonicity Substrate	non-ionic all	ethoxylated fatty alcohols	excellent dispersing power, good detergency, good emul- sifying power of fats and oils	
ZETESAN 3D				
lonicity Substrate	non-ionic/ anionic denim	aqueous dispersion of poly- mers and additives	excellent dispersing power, prevents staining of white ground	aftertreatment of denim fabrics
ZETESAN DN	l			
lonicity Substrate	anionic all	modified derivative of aromatic condensed compound	excellent dispersing power in a wide pH range, low foam formation	dyeing of natural, synthetic fibres and their blends

### SEQUESTERING AGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
OPTAVON S Ionicity Substrate	<b>V</b> anionic all	polyacrylate bluesign* APPROVED	dispersing effect, alkali and salt stable, foam-free, no demetallizing effect e.g. on copper containing dyestuffs, no influence on light fastness, shade and dyestuff yield, GOTS certified	complexing agent and pro- tective colloid for all dyeing, exhaust and continuous processes
OPTAVON N	W			
lonicity 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 the 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

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ALKASET AO	)B			
lonicity	anionic	buffer mixture	easy shading, reduces	alkali donor for high and
Substrate	cellulosics		dyeing time, higher dyestuff	medium reactive dyestuffs on
			yield, even and controlled	cellulosics, exhaust process
			liberation of alkali	
SETACID PAS	5			
lonicity	non-ionic	organic esters	slowly reduces pH value	acid donor for the dyeing of
Substrate	polyamide	bluesign <sup>®</sup> APPROVED	down to a final pH value of about 4.5 which results only	polyamide, exhaust process
			at dyeing temperature	
SETACID AB	conc			
lonicity	-	organic buffer system	excellent buffering effect,	pH adjustment of polyester
Substrate		bluesign Eco logic!	good ferric and calcium ion	dyeing baths in the acidic
			sequestering effect, low-foa-	range, exhaust and continue
			ming, dispersing effect	process

# WETTING/DEAERATION/PADDING

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
CEFATEX EN	<b>N</b> anionic all	combination of ethoxylates with defoaming components bluesign APPROVED	wetting, defoaming, high temperature stability, no influence on the shade, GOTS certified	deaerating agent, exhaust process
CEFAPAD WA lonicity Substrate	anionic polyamide, polyester, cotton	sulfonocarboxylic ester bluesign APPROVED	excellent wetting properties	rapid wetting agent for dyeing of polyamide and polyester tapes
CEFAMIG MP lonicity Substrate	anionic cellulosics, synthetics	polyacrylamide	foamless, stable to acid and alkali, no influence on shade and dyestuff yield	antimigration agent for pad dyeings on synthetics and cellulosics

#### polyester

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
CETAVINI OD	•••••		••••••	
lonicity 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 DEC	}			
lonicity Substrate	polyester	fatty acid ethoxylate	levelling, dispersing proper- ties, lowering of absorption rate of the dyestuffs during heating-up phase, dosable	universal standard product levelling and dispersing agent for polyester under HT and rapid dyeing conditions
SETAVIN PE				
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-	·E			
lonicity Substrate	anionic polyester	combination of fatty acid ethoxylate and aromatic esters  bluesign  APPROVED  Eco logic!	levelling, promotes migration already from 100°C on, no influence on fastness properties	concentrated levelling agent with diffusion accelerating effect
SETAVIN MIG				
Ionicity	anionic polyester	combination of fatty acid ethoxylate and aromatic car- boxylic acid compounds	dispersing, levelling, diffusion acceleration, especially for materials with difficult dye penetration	combination of dispersing/ levelling agent with diffusion accelerating effect
ZS-ECOCARF	RIER CAB			
Ionicity Substrate	anionic polyester	aromatic carboxylic acid compound bluesign APPROVED	biodegradable, low odour	dye carrier discontinuous and continuous processes

#### polyamide

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
SETAVIN P lonicity Substrate	anionic polyamide	combination of alkylamine ethoxylates and alkyl ben- zene 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 lonicity Substrate	non-ionic polyamide	alkylamine ethoxylate  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 P Ionicity Substrate	anionic polyamide	alkyl aryl sulphonate	high affinity for the fibre, thus lowering the absorp- tion rate even when dyeing polyamide fibres with high dyestuff affinity, excellently covers material irregular- ities, powerful migration promoting properties, good wetting effect	levelling agent for the dyeing of polyamide with acid dye- stuffs below boiling tempera- ture, excellent coverage of barriness
SETAVIN T lonicity Substrate	anionic polyamide	alkane sulphonate	affinity for the fibre, levels out affinity differences of the fibres, excellent level- ling and wetting properties, low-foaming, highly concen- trated	special levelling agent for the continuous dyeing of polyamide tapes
SETAVIN D lonicity Substrate	non-ionic polyamide	fatty acid ethoxylate	levelling, dispersing properties; lowers the absorption rate of the dyestuffs during the heating-up phase, dosable	levelling and dispersing agent for the dyeing of polyamide with disperse dyestuffs

#### wool

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
SETAVIN CN	A			
lonicity Substrate	cationic wool	alkylaminopolyglycolether  bluesign  APPROVED  Eco logic!	reduces the uptake rate and improves the migration, it acts both during temperature rise and during the permanence at boiling, GOTS certifid	universal standard product for the dyeing of wool with acid and premetallized dye- stuffs
SETAVIN RE				
Ionicity Substrate	amphoteric wool	alkylaminopolyglycolether	reduces the absorption rate, improves exhaustion, levels wool with diffrent affinity, avoids dyestuff deposits and improves the rubbing fastness, improves reproducibility	levelling agent for the dyeing of wool, also anti-shrink wool, with reactive dyestuff
SETAVIN RW	/P			
Ionicity Substrate	anionic wool, polyamide	sulphonic acid derivate	reduces the uptake rate and improves the migration, levels the affinity diffrence in order to obtain tone on tone colours	levelling and reserving agent for the dyeing of wool/poly- amide
SETAVIN ZA				
Ionicity Substrate	amphoteric wool/poly- ester, wool/ polyacrylo-	sulphate of alkylaminopoly- glycolether  bluesign  APPROVED  Eco logic!	reduces the uptake rate and improves the migration, it acts both during temperature rise and during the	levelling and reserving agent for the dyeing of WO/PES and WO/PAC with premetallized dyestuff
	nitrile		permanence at boiling, very good dispersing power in dyeing of WO/PES and WO/PAC, GOTS certifid	
SETAVIN TTI				
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, reduces wool vollowing, makes week excited.	the dyeing of wool at low temperatures, mainly for staple and combed sliver

yellowing, makes wool easier

to spin

#### wool

PRODUCT	CHEMISTRY	CHARACTERISTICS	APPLICATION
SETAVIN MSN Ionicity non-ionic Substrate wool	alkylamine ethoxylate  bluesign  APPROVED  Eco logic!	reduces the absorption rate, migration promoting, good wetting and dispersing properties, no selective influence on the dyestuff yield, low foaming, GOTS certified	for the dyeing with acid, 1:2 and 1:1 metal complex
		3,	

#### cellulose

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
SETAVIN DF				
lonicity Substrate	non-ionic cellulosics	alkylamine ethoxylate	lowers the absorption rate, improves the migration at final temperature, very low retarding effect, good dispersing and emulsifying capacity	levelling agent for direct dyestuffs
SETAVIN KE lonicity Substrate	non-ionic cellulosics	polyamine  bluesign  APPROVED	dyestuff affinity, lowers the dyestuff absorption rate, improves the dyestuff migration, inhibits dyestuff agglomerates, no retarding, low foaming, GOTS certified	levelling agent for vat dyestuffs as well as direct dyestuffs
SETAVIN RCC				
lonicity Substrate	anionic cellulosics	combination of a nitrogen derivative with polycarb-oxylic acids, alkyl aryl sulphonate and inorganic salts	ph regulating, dispersing, sequestering properties, protective colloid, low foam- ing, GOTS certified	levelling agent for reactive dyestuffs

#### acrylic

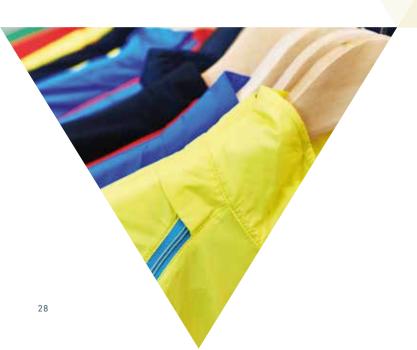
PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
SETAVIN LS lonicity Substrate	P cationic polyacrylo- nitrile	quaternary ammonium compound	reduces the uptake rate, promotes migration and evenness	levelling agent with blocking effect for acrylic fibres
SETAVIN ZA lonicity Substrate	<b>c</b> cationic polyacrylo-	quaternary ammonium derivate	reduces the uptake rate, pro- motes migration and even-	- levelling agent for acrylic fibres
	nitrile		ness, non-blocking action	

### CREASE PREVENTING AGENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
LUBATEX EC. Ionicity Substrate	<b>S</b> non-ionic cellulosics	polyacrylamide bluesign APPROVED	foamless, shear stable, no retarding effect, high salt stability, resistant to acids	for use in pretreatment and dyeing
			and alkalis, GOTS certified	
LUBATEX LV	conc			
lonicity	non-ionic/ slightly anionic		foamless, concentrated, universal crease preventing	for use in pretreatment and dyeing
Substrate	polyester, poly- amide, wool, cellulosics	bluesign Eco logic!	agent; electrolyte stable; stable to acid and alkali, GOTS certified	
LUBATEX RU	N			
lonicity Substrate	non-ionic polyester, poly- amide, wool	mixture of hydrophilic polymers and fatty acid condensation product bluesign APPROVED	special crease preventing agent with additional bene- fits (smoothness, hydrophili- cy, soil release, antistatic), GOTS certified	for use in dyeing
LUBATEX SZ	conc			
lonicity Substrate		emulsified fatty material based product	concentrated crease preventing agent, enables higher loading of goods in the machineries, suitable to protect fine fabrics	for use in fabric dyeing
PROTELAN A	ιF			
Ionicity Substrate	non-ionic wool	aqueous dispersion of polymer with high molecular weight	special crease preventing agent, protects from felting during wet processes, low foaming, no effect on any dyestuff	for use in fabric processes of wool
LUBATEX A2	5			
Ionicity Substrate	non-ionic synthetics	polyamide derivatives	crease preventing agent with good lubricating and antistatic power, gives hydrophilicity to fibre, non-yellowing	dyeing of synthetic fibres

#### polyester

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



#### polyamide

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESAL N Ionicity Substrate	R 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 dyestuffs; reserving agent for PA/wool and PA/cellulosic blends, process: jet or continuous dyeing
ZETESAL N Ionicity Substrate	R gold+ 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, substantially lower yellow- ing 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 N lonicity 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
lonicity 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 require- ments, 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

#### polyamide

**PRODUCT CHEMISTRY** CHARACTERISTICS **APPLICATION ZETESAL FSA** Ionicity anionic

Substrate polyamide aromatic sulphonic acids bluesian\* APPROVED

polycondensation product of stable in acid conditions, also to concentrated acetic good reserving power, no influence on light fastness and shade, no yellowing, no effect on the fastness properties by subsequent steaming and heat setting processes, compliant to OEKO-TEX Standard 100

aftertreatment and reserving agent for dyeing and printing acid, improves wet fastness, on polyamide fibres, including carpet printings

#### **ZETESAL NT**

Ionicity anionic Substrate polyamide polycondensation product of non-yellowing, universal use, improvement of wet fastness aromatic sulphonic acids



no influence on light fastness, shade and handle, for high quality requirements

of dyeings and printings on PA with acid dyestuffs; reserving agent for PA/wool and PA/cellulosic blends process: jet or continuous dyeing

#### **ZETESAL TCS**

Ionicity cationic Substrate polyamide polyamine bluesign® APPROVED

universal use, jet stable, for highest standards of wet fastness properties; applied in the double fixing process (anionic/cationic)

aftertreatment agent for improving the wet fastness properties, in particular the fastness to water and perspiration, of dyed polyamide and wool as well as their mixtures with elastane

#### **ZETESAL CPW**

Ionicity cationic Substrate polyamide, wool

polyamine bluesian APPROVED

universal use, jet stable, for highest standards of wet fastness properties; applied properties, in particular the in the double fixing process (anionic/cationic)

aftertreatment agent for improving the wet fastness fastness to water and perspiration, of dyed polyamide and wool as well as their mixtures with elastane

#### polyamide

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESAL F ( lonicity Substrate	cationic polyamide, wool	polyamine bluesign* APPROVED	universal use, jet stable, for highest standards of wet fastness properties; applied in the double fixing process (anionic/cationic)	aftertreatment agent for improving the wet fastness properties, in particular the fastness to water and perspiration, of dyed polyamide and wool as well as their mixtures with elastane
PROTELAN I Ionicity Substrate	uv-pa anionic polyamide	compound of copper mixed with protectors	improves the FAKRA light fastness, no influence on wet fastness and handle	light fastness improving agent for polyamide

#### cellulose

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESAL 20 lonicity Substrate	oo 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 FIX Ionicity Substrate	cationic cellulosics	quaternary ammonium compound bluesign APPROVED Ecologic!	formaldehyde-free, concentrated product, very good improvement of the wash fastness, no influence on	improvement of wet fast- ness of reactive dyeings and printings; padding or exhaust process

**ZETESAL WER** lonicity cationic formaldehyde-free, no influ- improvement of wet fastquaternary ammonium Substrate cellulosics compound ence on light fastness and ness of reactive dyeings and bluesign<sup>®</sup> APPROVED handle, GOTS certified printings; padding or exhaust process

light fastness and handle,

GOTS certified

#### cellulose

**PRODUCT CHEMISTRY** CHARACTERISTICS **APPLICATION ZETESAL CCL** Ionicity polyammonium compound formaldehyde-free, concen- improvement of chlorine fastcationic Substrate cellulosics trated product, excellent pro- ness and wet fastness of rebluesign\* APPROVED tection of reactive dyeings active dyeings and printings; against influence of active padding or exhaust process chlorine in swimming pools and household detergents, also imparts good fastness to washing, GOTS certified **ZETESAL TCS** formaldehyde-free, no influ- improvement of the wet fastcationic Ionicity polyamine Substrate cellulosics ence on light fastness and ness of direct and reactive bluesign\* APPROVED handle, especially effective dyeings and printings; padon dyeing with C.I. Reactive ding or exhaust process 19 and 21 **ZETESAL CPW** Ionicity cationic formaldehyde-free, no influimprovement of the wet fastpolyamine Substrate cellulosics ence on light fastness and ness of direct and reactive bluesign\* APPROVED dyeings and printings; padhandle ding or exhaust process **ZETESAL LTS** Ionicity anionic aqueous polymer solution strongly dispersing, proaftersoaping agent for fastbluesign\* Substrate cellulosics motes the removal of ness improvement of reactive APPROVED non-fixed dyestuff, prevents dyeings and printings redeposition, foamless, also usable in dyebath, soaping at 70°C possible for selected dyestuffs, GOTS certified

#### **ZETESAL NS**

Ionicity anionic polyacrylate strongly dispersing, pro- aftersoaping agent for fastSubstrate cellulosics bluesign motes the removal of ness improvement of reactive non-fixed dyestuff, prevents dyeings and printings redeposition, foamless, also usable in dyebath

#### cellulose

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESAL SR extra				
lonicity Substrate	anionic cellulosics	combination of a nitrogen derivative with polycarboxylic acid, alkyl aryl sulfonate and inorganic salts  bluesign  APPROVED	dispersing, sequestering, promotes the removal of non-fixed dyestuff, prevents redeposition, foamless, GOTS certified	aftersoaping agent for fast- ness improvement of reactive dyeings and printings
silk				
PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ZETESAL S	LF			
lonicity Substrate	cationic silk	quaternised ethoxylated alkylamines	excellent dispersion pow- er, outstanding reserving effect, low foam formation, improves the fabric touch	soaping agent for wool and silk fabrics, printed with acids and premetallized dyestuffs
ZETESAL F	Р0			
Ionicity Substrate	cationic silk	bluesign Eco logic!	improves wet fastness, especially water and per- spiration, formaldehyde-free, GOTS certified	fixing agent for fastness im- provement of acid dyeings
wool				
PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
DEPICOL K	D			
lonicity Substrate	non-ionic wool	mixture of surfactants with additives and solvents	dispersing, sequestering agent, promotes the removal of non-fixed dyestuff, prevents redeposition	
PROTELAN	UV-W			
Ionicity Substrate	anionic wool	benzotriazole sulphonate derivative	improves light fastness, reduces fibre yellowing, no influence on shade, wet fastness and handle	light fastness improving agent for wool

# CARPET COLOURATION

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION		
ZETESIST CD						
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	г					
lonicity	anionic	polycondensation product of		highly efficient reserving		
Substrate	polyamide	aromatic sulphonic acids bluesign APPROVED	when used in printing pastes, no yellowing of white	agent for the colour resist process		
ZETESAL M	SN					
lonicity Substrate	non-ionic polyamide, wool	alkylamine ethoxylate bluesign APPROVED	reduces the absorption rate, migration promoting, good wetting and dispersing properties, no selective influence on dyestuff yield,	levelling compound for the space dyeing method applied to polyamide and wool		
SETAVIN KS			low foaming			
lonicity Substrate	non-ionic polyamide	alkylamine ethoxylate bluesign APPROVED	lowers the absorption rate in the heating-up phase, improves the migration, no	levelling and dispersing agent for the dyeing with acid, 1:2 metal complex and strongly		
			influence on dyestuff yield	acid dyestuffs as well as reactive dyestuffs		
SETAVIN PN	Т					
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	excellent levelling agent for the dyeing of polyamide carpets with acid dyestuffs below boiling temperature		
			high dyestuff affinity, excel- lently covers material irreg- ularities, powerful migration promotion properties, good wetting effect			
SETAVIN PA						
lonicity Substrate	anionic polyamide	combination of alkylamine ethoxylates and alkyl ben-	reduces the absorption rate during the heating-up	levelling agent for the dyeing of polyamide carpets		
		zene sulphonates bluesign APPROVED	phase, levels out affinity differences on the fibre, reduces barriness, good migrating, wetting and dis- persing effects			

# CARPET COLOURATION

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
CEFAFROST Ionicity Substrate	anionic polyamide	combination of fatty acid condensation product and fatty alcohol ethoxylate	preventing of frosting effects by generating a fine-pored foam in an acid or alkaline pH range, excellent wetting effects, thus no	anti-frosting agent for contin- uous dyeing and printing
			extra use of a wetting agent necessary, GOTS certified	

### MISCELLANEOUS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
<b>ZS-CLEANR</b> lonicity Substrate	rEDOX FOS - polyester	glucose mixture  bluesign* APPROVED  Eco logic!	odourless, free from sul- phite, low sewage water pollution, not self-igniting	ecological reducing agent for reduction clearing of poly- ester
ZETESAN O lonicity Substrate	cationic polyester	combination of quaternary compounds and polyglycol ethers	dispersing, prevents depos- its of oligomers in packages and on machinery walls	oligomer remover and ma- chinery cleaner
RETENTOL Ionicity Substrate	anionic polyacrylo- nitrile	combination of organic derivates of sulphur	restores the dyeability of saturated PAC fibres	unlocking, discharging agent for PAC
PROTELAN Ionicity Substrate	<b>ASA</b> 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 lonicity Substrate	PFA 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 N lonicity Substrate	II non-ionic all	fatty acid condensation product	free from yellowing, jet sta- ble, applicable in combina- tion with optical brighteners,	all kinds of fibres, white goods, additive for easy-care finish, pad application
CEFASOFT N	non-ionic/	amino group modified sili- cone micro emulsion	excellent soft touch, imparts elasticity and voluminous	all kinds of fibres, additive for easy-care finish
Substrate  CEFASOFT M	all IST		handle, GOTS certified	
lonicity	non-ionic/ cationic	amino group modified sili- cone micro emulsion	soft touch, cost-effective	all kinds of fibres, pad and exhaust application
Substrate	all			
CEFASOFT S	MA			
lonicity Substrate	non-ionic/ cationic all	amino group modified sili- cone macro emulsion	permanent to washing, excellent soft touch, imparts elasticity and smoothness	all kinds of fibres, additive for easy-care finish, pad application
CEEA COET C	IID			
CEFASOFT S		mandified alloyenes	increase and sight south	
Ionicity Substrate	non-ionic cellulosics, polyamide, polyester	bluesign APPROVED	imparts special soft touch and hydrophilicity, dyeable, especially stable in all pro- cesses, GOTS certified	cellulosic fibres and polyamide, for terry towels, sports clothing and yarn application
CEFASOFT M	ISR			
lonicity Substrate	non-ionic/ cationic	amino group modified reactive silicone micro emulsion		all kinds of fibres, additive for easy-care finish, pad and exhaust application
		APPROVED	soft handle	
CEFASOFT P	ED			
Ionicity Substrate	non-ionic all	bluesign APPROVED	softener and additive for easy-care finish, improves sewability of knitted fabric as well as tensile and tear strength	all kinds of fibres, additive for easy-care finish, improves sewability

# SOFTENERS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
CEFASOFT	MAC			
lonicity	non-ionic/ cationic	amino group modified silicon macro emulsion	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			
lonicity	non-ionic	fatty acid condensation	no yellowing, imparts very	all kinds of fibres, knitwear,
Substrate	all	product and polyethylene	high lubricity (improves sew- ability), GOTS certified	raising, white goods, pad application
CEFASOFT	NEX			
lonicity	weakly cationic	amino-functional polysiloxane	no foaming, very soft and woolly touch, good washing	for wool, silk, acrylic fibres and their blends
Substrate	wool, silk, polyacrylo- nitrile		resistance	

## SOFTENERS

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



# SOFTENERS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ADULCINOL	. 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
ADULCINOL	. AMS			
lonicity Substrate	cationic wool, silk, polyacrylo- nitrile	fatty acid condensation product and silicone	no foaming, very soft touch, increases lubricity	for wool, silk, acrylic fibres and their blends
ADULCINOL	. FT			
Ionicity Substrate	cationic all	fatty acid condensation product	concentrated product for manufacturing "ready-foruse" softeners (→ ADULCINOL BUN)	concentrate
CEFASOFT	МС			
Ionicity Substrate	non-ionic/ cationic all	amino group modified sili- cone micro emulsion	concentrated product for manufacturing "ready-foruse" softeners, GOTS certified (→ CEFASOFT MIS)	concentrate

### WATER AND OIL REPELLENTS

#### fluorocarbons

PRODUCT	CHEMISTRY	CHARACTERISTICS	APPLICATION
ANTHYDRIN 09 -			
Ionicity ani Substrate all  ANTHYDRIN SCE	onic fluoro carbon resin		soil resistant agent with addi- tional benefit of water and oil repellency
lonicity slig	htly fluoro carbon resinonic bluesign APPROVED	free from solvents, no influence on the touch of textiles, designed for especially good water repellency, based on C6-chemistry	pellent finishing, especially
, ,	htly fluoro carbon resinonic	free from solvents, curing is possible at temperatures of approx. 100-110°C, based on C6-chemistry	lent finishing, low-tempera-
ANTHYDRIN LEB Ionicity cat Substrate all	ionic fluoro carbon resin	goods, low emission factors,	durable water- and oil-re- pellent finishing, especially for cotton and blends, can be used for textiles with food contact
ANTHYDRIN BM Ionicity cat Substrate all	ionic fluoro carbon resin		durable water- and oil-repel- lent finishing, universal use on all kinds of fibres
	thtly fluoro carbon resinguionic bluesign APPROVED	free from solvents, no influence on the touch of the goods; based on C6-chemistry, LAD	· ·
	htly fluoro carbon resinionic	influence on the touch of the	durable water- and oil-repel- lent finishing, universal use on all kinds of fibres

### WATER AND OIL REPELLENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ANTHYDRIN	VSA			
lonicity	slightly	fluorinecarbon resin	free from solvents, no	durable water- and oil-repel-
	cationic		influence on the touch of the	lent finishing, especially for
Substrate	wool, silk		goods, low temperature cur-	wool and silk fibres and their
			ing based on C6-chemistry	hlends



### FLUORO-FREE WATER REPELLENTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION			
ANTHYDRIN	PSZ conc						
lonicity	slightly cationic	hydrocarbons compound and zirconium salts	free from solvents, pleasant soft touch	repellent finishing, especially			
Substrate	all			for natural fibres and their blends			
ANTHYDRIN	DNF						
Ionicity	cationic	functionalized polymer	fluorine-free, durable, pleas-	fluorine-free, durable			
Substrate	all		ant soft touch	water-repellent finishing, especially for synthetic fibres and their blends			
ANTHYDRIN	FF one						
Ionicity	non-ionic	liquid silicon emulsion	fluorine-free, based on a	fluorine-free water-repellent			
Substrate	all	bluesign Eco logic!	liquid silicon emulsion, single product	finishing agent for all kinds of fibres, durable to washing by using a crosslinking agent			
ANTHYDRIN	FF base						
lonicity	non-ionic	liquid silicon emulsion	fluorine-free, based on a	fluorine-free water-repellent			
Substrate	all	bluesign Eco logic!	liquid silicon emulsion, part of a modular system	finishing agent for all kinds of fibres, durable to washing by using a crosslinking agent			
ANTHYDRIN	ANTHYDRIN FF soft						
lonicity	non-ionic	amino-containing silicon	part of a modular system,	for an individual touch within			
Substrate	-	dispersion  Eco logic!	imparts a soft and smooth touch	the modular system			
ANTHYDRIN	FF cat						
lonicity	-	metalliferous catalyst for-	part of a modular system,	catalyst and bonding agent			
Substrate	-	mulation  Eco logic!	for a better durability to washing	for fluorine-free water-repel- lent finishing for all kinds of fibres			
ANTHYDRIN	FF wax						
lonicity	cationic	fat modified melamine	fluorine-free, single product	fluorine-free water-repellent			
Substrate	all	bluesign Eco logic!		finishing agent for all kinds of fibres, for bulk articles with low up to medium require- ments of water repellency			

### FLAME RETARDANTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION		
FLAMMEX L	F					
Substrate	synthetics	inorganic phosphorus compound	not permanent, fogging-free	flame retardant finish for synthetic fabrics		
FLAMMEX L	СР					
Substrate	polyester	organic phosphorus compound	permanent, no thermofixa- tion necessary, no reductive cleaning necessary	flame retardant finish for polyester		
FLAMMEX A	FLAMMEX APP					
Substrate	all	inorganic phosphorus and nitrogen compound	low water solubility	flame retardant finish for the combination with dispersions		



## DISPERSIONS

### polyurethanes

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

### polyacrylates

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
POLAPPRET	AC-S			
lonicity	non-ionic	polyacrylate copolymer	soft handle, self-crosslink-	filling agent
Substrate	all		ing, durable to washing	
POLAPPRE1	- NA			
PULAPPRE	NA			
lonicity	non-ionic	polyacrylate copolymer	stiff but elastic handle, self-	filling and stiffening agent
Substrate	all		crosslinking, permanent to	
			washing	

### DISPERSIONS

### polyvinyl acetates

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
POLAPPRE	THW			
lonicity	slightly	polyvinyl acetate copolymer	very soft handle, perma-	filling agent, selvedge adhe-
	anionic		nent to washing, self-	sive
Substrate	all		crosslinking	
POLAPPRET			filling finish importing a	filling and stiffening agent
lonicity	slightly	polyvinyl acetate copolymer		filling and stiffening agent,
	anionic		relatively hard handle	selvedge adhesive
Substrate	all			
POLAPPRET	T HNH			
Ionicity	non-ionic	polyvinyl acetate	very stiff handle, not	filling and stiffening agent
Substrate	all	bluesign Eco logic!	permanent to washing	



# PRODUCTS FOR BACK COATING OF TUFTED CARPETS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
ELACTIV 13 Ionicity Substrate	<b>07</b> anionic 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 Substrate	anionic 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 lonicity Substrate	anionic polyamide	carboxylic acids	no effect on delamination and bonding of tufts	antistatic agent for latex back coating of tufted carpets and needle felt
FLEROGUM Ionicity Substrate	anionic synthetics	sulphosuccinate	decreases surface tension of latex compounds for better wetting of the pile	wetting agent for the latex back coating of tufted carpets and needle felt
FLEROGUM	В4		yarn	
Ionicity Substrate	- all	amphoteric surfactants  bluesign* APPROVED  Eco logic!	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			
lonicity	non-ionic	hydrocarbons	concentrated product for all	foam killing, reducing and
Substrate	all	bluesign*	purposes, free from 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			
lonicity	non-ionic	modified polysiloxane	defoamer with outstanding	foam killing, reducing and
Substrate	all	emulsion	shear, temperature and pH	preventing
		bluesign <sup>®</sup>	stability	
CONTRIPON	BD			
Ionicity	non-ionic	combination of plant oils	very good biodegradabili-	foam killing, reducing and
Substrate	all	and emulsifiers	ty, free from silicone- and	preventing
Jubbliale				
	att	bluesign*	mineral oils	p. c. c

## CROSSLINKER

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
POLAPPRET lonicity Substrate	VIB - all	formaldehyde-free, blocked isocyanate	deblocks at 150°C	crosslinker for polyacrylate- polyurethane dispersions and fluorocarbons
POLAPPRET Ionicity Substrate	- all	blocked isocyanate	formaldehyde-free, stable to yellowing	crosslinker for dispersions and pigment printing

## SPECIAL FINISHING PRODUCTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
CEFATEX P	E			
lonicity Substrate	non-ionic polyester	bluesign Eco logic!	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 P	AM			
lonicity Substrate	non-ionic 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 Substrate	anionic synthetics	alkyl phosphate bluesign APPROVED	antistatic agent especially for synthetics	synthetic fibres, pad application
SANFOROL	тс			
lonicity Substrate	anionic cotton	ester sulphonate and poly- ethylene	sanforizing agent with very good softening and smooth- ing properties for cellulose fibres and their blends with synthetics	CO and CO blends
CARBOLAN	DL			
lonicity	anionic	polyacrylate	thickens in alkaline medium	thickener for coatings
Substrate	all		(pH 8-10)	
CARBOLAN	SAB			
Ionicity Substrate	non-ionic all	natural organic polymer	thickens in acid medium (pH 5)	high viscosity thickening agent suitable for space- dyeing and carpet printing
CARBOLAN	RE			
Ionicity Substrate	anionic cellulosics	sodyum alginate	use in stock thickener solu- tion with OPTAVON A and water	thickener for printing on cellulose fibres with reactive dyes

### SPECIAL FINISHING PRODUCTS

PRODUCT		CHEMISTRY	CHARACTERISTICS	APPLICATION
DUROZELL I lonicity Substrate	<b>FL</b> anionic wool	monoethanolamine sulphite and additives	chemical fixing of wool, anti-crease power, reduces pilling	wool fibres, pad application
SILSOL S23 Ionicity Substrate	cationic wool, silk, viscose	colloidal silica in aqueous dispersion	high cohesion power, improves adhesiveness be- tween threads, special touch for silk and viscose	anti-slipping agent for wool, silk and viscose



PRODUCT	BLUESIGN	GOTS	ZDHC*	OEKO-TEX STANDARD 100**
ADULCINOL ALD			$\nabla$	<b>V</b>
ADULCINOL AMS			$\nabla$	_
ADULCINOL BML			$\nabla$	<b>V</b>
ADULCINOL EB20	<b>V</b>		$\nabla$	<b>V</b>
ADULCINOL ET			$\nabla$	<b>V</b>
ADULCINOL FT			<b>V</b>	<b>V</b>
ADULCINOL GV	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
ADULCINOL T7531	<b>V</b>		$\nabla$	
ALKASET AOB	-		$\nabla$	_
AMPHOTEX MB23			$\nabla$	<b>V</b>
ANTHYDRIN BM			$\nabla$	<b>V</b>
ANTHYDRIN DNF	-		$\nabla$	<b>T</b>
ANTHYDRIN FF ONE	<b>V</b>		$\nabla$	<b>V</b>
ANTHYDRIN FF BASE	<b>V</b>		$\nabla$	<b>V</b>
ANTHYDRIN FF SOFT			$\nabla$	<b>Y</b>
ANTHYDRIN FF CAT			$\nabla$	
ANTHYDRIN FF WAX	▼		$\nabla$	<b>V</b>
ANTHYDRIN GP			$\nabla$	<b>V</b>
ANTHYDRIN LEB			$\nabla$	<b>V</b>
ANTHYDRIN NK6			$\nabla$	<b>V</b>
ANTHYDRIN PSZ CONC			$\nabla$	<b>V</b>
ANTHYDRIN SC	▼		$\nabla$	<b>V</b>
ANTHYDRIN SCE	▼		$\nabla$	<b>V</b>
ANTHYDRIN VSA	,		$\nabla$	
ANTHYDRIN 09-1030			$\nabla$	<b>V</b>
CARBOLAN DL			$\nabla$	<b>V</b>
CARBOLAN RE			$\nabla$	
CARBOLAN SAB			$\nabla$	▼
CEFAFROST AFW		<b>V</b>		<b>V</b>
CEFAMIG MP			$\nabla$	<b>V</b>
CEFAPAD WAT	▼		<b>V</b>	<b>V</b>
CEFASOFT GW		<b>V</b>	$\nabla$	<b>V</b>
CEFASOFT NI			$\nabla$	<b>V</b>
CEFASOFT MAC	-		$\nabla$	<b>V</b>
CEFASOFT MC		<b>V</b>	$\nabla$	<b>V</b>

<sup>\* ▼</sup> Products comply to ZDHC MRSL
▼ registered to ZDHC Chemical Gateway
\*\* ▼ Products comply to classes I-IV

PRODUCT	BLUESIGN	GOTS	ZDHC*	OEKO-TEX STANDARD 100**
CEFASOFT MIS		<b>V</b>	<b>V</b>	▼
CEFASOFT MSR	_	-	<b>V</b>	<b>V</b>
CEFASOFT MST	-	-	$\nabla$	<b>V</b>
CEFASOFT NEX			$\nabla$	▼
CEFASOFT PED	<b>V</b>		$\nabla$	<b>V</b>
CEFASOFT SHD	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
CEFASOFT SMA			$\nabla$	<b>V</b>
CEFATEX ENN	<b>V</b>	<b>V</b>	▼	<b>V</b>
CEFATEX PAM	<b>V</b>		▼	<b>V</b>
CEFATEX PE	<b>V</b>		▼	<b>V</b>
CELLANA GB			$\nabla$	<b>V</b>
CELLANA PRS			$\nabla$	▼
CELLANA RV			$\nabla$	<b>V</b>
CELLANA VAW			$\nabla$	<b>V</b>
CONDISOL GP			$\nabla$	<b>V</b>
CONTRIPON BD	<b>V</b>	▼	$\nabla$	<b>V</b>
CONTRIPON MD			$\nabla$	<b>V</b>
CONTRIPON S		<b>V</b>	<b>V</b>	<b>V</b>
CONTRIPON W-P		<b>V</b>	▼	<b>V</b>
DEPICOL KD			$\nabla$	<b>V</b>
DEPICOL ND			▼	<b>V</b>
DUROZELL FL			$\nabla$	<b>V</b>
ELACTIV KE			$\nabla$	<b>V</b>
ELACTIV KH			$\nabla$	<b>V</b>
ELACTIV QD25			$\nabla$	<b>V</b>
ELACTIV 1307			$\nabla$	<b>V</b>
ENSIMOL BC			$\nabla$	<b>V</b>
ENSIMOL KW conc	_	<b>V</b>	<b>V</b>	<b>V</b>
ENSIMOL PB6			$\nabla$	<b>V</b>
ENSIMOL WAX			$\nabla$	<b>V</b>
FLAMMEX APP	_		$\nabla$	<b>V</b>
FLAMMEX LCP			$\nabla$	<b>V</b>
FLAMMEX LF	_		$\nabla$	<b>V</b>
FLEROGUM B4			$\nabla$	<b>V</b>
FLEROGUM FC	<b>V</b>		$\nabla$	▼ /

PRODUCT	BLUESIGN	GOTS	ZDHC*	OEKO-TEX STANDARD 100**
FLEROL BW			$\nabla$	<b>V</b>
FLEROL FNE			$\nabla$	<b>V</b>
FLEROL CS 45			$\nabla$	<b>V</b>
FLEROL KFN conc			$\nabla$	<b>V</b>
FLEROL KFC	▼	▼	$\nabla$	<b>V</b>
FLEROL MX21			$\nabla$	▼ /
FLEROL PLM			$\nabla$	<b>V</b>
FLEROL PP			$\nabla$	<b>y</b>
KATAMIN BW 3.0	<b>V</b>	<b>V</b>	_	<b>V</b>
KATAMIN EP			$\nabla$	▼
KATAMIN GV			$\nabla$	▼
KATAMIN UNI	▼	▼	▼	<b>V</b>
LUBATEX A25			$\nabla$	▼
LUBATEX ECS	▼	▼	▼ /	▼
LUBATEX LV conc	▼	▼	▼ /	<b>V</b>
LUBATEX RUN	▼	▼	$\nabla$	<b>V</b>
LUBATEX SZ conc			$\nabla$	<b>V</b>
NEWALOL CL			$\nabla$	<b>V</b>
NEWALOL PFN	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
NEWALOL SPEZIAL			$\nabla$	<b>V</b>
OPTAVON BAS	▼	▼	$\nabla$	<b>V</b>
OPTAVON CL			$\nabla$	<b>V</b>
OPTAVON DSQ			$\nabla$	<b>V</b>
OPTAVON F LIQ			$\nabla$	<b>V</b>
OPTAVON FE conc	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
OPTAVON LTB	▼		▼	<b>V</b>
OPTAVON MEL	<b>V</b>	<b>V</b>	$\nabla$	<b>V</b>
OPTAVON MEX	<b>V</b>	<b>V</b>	_	<b>V</b>
OPTAVON NW	▼	▼	▼	<b>V</b>
OPTAVON SV	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
OPTAVON 4UD	▼	<b>V</b>	<b>V</b>	<b>V</b>
PROTELAN AF			$\nabla$	<b>V</b>
PROTELAN ASA			$\nabla$	
PROTELAN AY			$\nabla$	<b>V</b>
PROTELAN ATY-P	▼		$\nabla$	<b>V</b>
-				

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PRODUCT	BLUESIGN	GOTS	ZDHC*	OEKO-TEX STANDARD 100**
***************************************				JIANDAND 100
PROTELAN CEL			▼	<b>V</b>
PROTELAN CF 2	<b>V</b>	<b>V</b>		<b>V</b>
PROTELAN LG 55			$\nabla$	<b>V</b>
PROTELAN LGA	▼	▼	▼	<b>V</b>
PROTELAN LGE	<b>V</b>		$\nabla$	<b>V</b>
PROTELAN LGS plus	<b>V</b>		<b>V</b>	<b>V</b>
PROTELAN PFA			$\nabla$	<b>V</b>
PROTELAN UV-PA	_		$\nabla$	▼
PROTELAN UV-PE			$\nabla$	▼
PROTELAN UV-TH			$\nabla$	<b>V</b>
PROTELAN UV-W			$\nabla$	<b>V</b>
POLAPPRET AC-S	-		$\nabla$	<b>V</b>
POLAPPRET HNH	▼		▼	▼
POLAPPRET HST	•		$\nabla$	<b>V</b>
POLAPPRET HW			$\nabla$	<b>V</b>
POLAPPRET NA			$\nabla$	<b>V</b>
POLAPPRET PU-DM	_		$\nabla$	<b>V</b>
POLAPPRET PU-H			$\nabla$	<b>V</b>
POLAPPRET PU-S	<b>V</b>		$\nabla$	<b>V</b>
POLAPPRET VAC-H	-		$\nabla$	<b>V</b>
POLAPPRET VIB			$\nabla$	<b>V</b>
REDUSCOUR SILK	-		$\nabla$	<b>V</b>
REDUSTAB KOS	<b>V</b>		$\nabla$	<b>V</b>
REDUSTAB OS		<b>V</b>		<b>V</b>
REDUZIN WO			$\nabla$	<b>V</b>
RETENTOL BGA			$\nabla$	<b>V</b>
SANFOROL TC	-		$\nabla$	<b>V</b>
SETACID AB conc	<b>V</b>	<b>V</b>		<b>V</b>
SETACID PAS	<b>V</b>			<b>V</b>
SETAVIN CNA	<b>V</b>		$\nabla$	<b>V</b>
SETAVIN DEG			$\nabla$	
SETAVIN DF			$\nabla$	<b>V</b>
SETAVIN KE		<b>V</b>	$\nabla$	
SETAVIN KS	▼		<b>V</b>	
SETAVIN LSP	-		$\nabla$	<b>V</b>
	-			•

PRODUCT	BLUESIGN	GOTS	ZDHC*	0EKO-TEX STANDARD 100**
SETAVIN MIG			$\nabla$	
SETAVIN MSN	<b>V</b>		<b>V</b>	<b>V</b>
SETAVIN PA	<b>V</b>		<b>V</b>	<b>V</b>
SETAVIN PE	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
SETAVIN PNT			<b>V</b>	<b>V</b>
SETAVIN RCO	<b>V</b>	<b>V</b>		<b>V</b>
SETAVIN RE			$\nabla$	<b>V</b>
SETAVIN RWP			$\nabla$	
SETAVIN SU-E	<b>V</b>			<b>V</b>
SETAVIN TAPE conc			$\nabla$	<b>T</b>
SETAVIN TTLB			$\nabla$	<b>V</b>
SETAVIN ZA	<b>V</b>		$\nabla$	<b>V</b>
SETAVIN ZAC			$\nabla$	<b>V</b>
SETAVIN 3D			$\nabla$	<b>V</b>
SILSOL S230			$\nabla$	<b>Y</b>
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	▼		_	<b>V</b>
TISSOCYL JT	-		$\nabla$	<b>V</b>
TISSOCYL NMP	▼	<b>-</b>	$\nabla$	
TISSOCYL POW			$\nabla$	<b>V</b>
TISSOCYL RC 9	<b>V</b>	<b>V</b>		
TISSOCYL RLB	▼		_	<b>V</b>
TISSOCYL TBL			$\nabla$	<b>V</b>
TORSINOL ZSB	<b>V</b>		$\nabla$	
VOLTURIN LH05			$\nabla$	<b>V</b>
VOLTURIN T05			$\nabla$	<b>V</b>
VOLTURIN TP 3000	<b>V</b>		$\nabla$	<b>V</b>
ZETESAL CCL	<b>T</b>	<b>V</b>		<b>—</b>

<sup>\* ▼</sup> Products comply to ZDHC MRSL
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\*\* ▼ Products comply to classes I-IV

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



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