

Garment finishing auxiliaries

Product Overview - Version 15

Desizing	g, stone-w	ashing e	effects, bic	o-polishing, blea	ching, washing/cleaning									
Product	Chemical Basis	lonic cha- racter	Function relevant to denim	Short description	Benefits, key characteristics	Suitable for padding	Suitable to be sprayed by spray gun	Suitable to be applied by spray / fog / nebulization system	Suitable in classical garment drum washing ma- chines	Actual application at Scivera for Screened Chemistry	bluesign® APPROVED	Standard 100 by OEKO-TEX® compliance class I-IV	ZDHC compli- ant (Contained in RUDOLF ZDHC positive list) RI 15/2014 Edition 4.0	Actual ZDHC Chemical Gateway Con- formity level
RUCOLASE® JEA	Preparation of amylase and non-ionic surfactants	Non-ionic	Desizing	Versatile, highly efficient, liquid enzyme for desizing of denim at a wide range of operating temperatures	 Optimum efficiency at pH 7 - 8 For operating ranges between pH 6 - 9 Standardised, very high enzyme activity 	Yes	Not intended	Not intended	Yes		(✓)	Yes	Yes	Level 3
RUCOLASE® DFA	Preparation of amylase and non-ionic surfactants	Non-ionic	Desizing	Versatile, highly efficient, liquid enzyme for desizing of denim at a wide range of operating temperatures with high non-petro chemical content	 Special product for the enzymatic desizing of denim Optimum efficiency at pH 7 - 8 For operating ranges between pH 6 - 9 Standardised, very high enzyme activity 	Yes	Not intended	Not intended	Yes		√	Yes	Yes	Level 3
RUCOLASE® CACL	Enzyme prepartion of neutral cellulase and amylase	Uncharged	One-step desi- zing and stone- washing effect	All-in-one, liquid en- zyme for desizing and stone-washing effects at low temperature	 Liquid enzymatic compound for all-in-one desizing and stone-washing effects High energy, water and time saving potential due to one-step process and low temperature application Achieves excellent naturally structured stone-washing effects 	Not intended	Not intended	Possible (Denisafe), but not recom- mended	Yes		√	Yes	Yes	Level 3
RUCOLASE® CHPL	Enzyme preparation of neutral cellulase	Uncharged	Stone-washing effects	Concentrated, high per- forming, liquid enzyme for stone-washing effects at low tempera- ture with high non-petro chemical content	 Liquid enzymatic compound for stone-washing effects at low temperatures Achieves excellent naturally structured effects On selected denim fabrics it allows to achieve stonewashing effect without using pumice stones Does not cause material damages 	Not intended	Not intended	Yes (Denisafe)	Yes		(✓)	Yes	Yes	Level 3
RUCOLASE® DWS	Enzyme preparation of neutral cellulase and bio-based abrasive	Uncharged	Stone-washing effects without water level	Innovative granulated enzyme and bio-based abrasive component for stone-washing effects without additional water level	 Unique stone-washing effects without pumice stones Innovative bio-based abrasion, enzyme supported Water saving due to working without additional water level 	Not intended	Not intended	Not intended			✓	Yes		Level 3
RUCORIT BBE	Enzyme pre- paration for bio-bleaching of indigo- dyed denim	Uncharged	Enzymatic compound for bio-bleaching	Bio-bleaching agent already active at ambient temperature, also suitable for bio- cleaning of denim from backstaining at lower dosage	 Enzymatic bio-bleaching Halogen-free alternative to hypochlorite bleach At lower dosages, it can be successfully used to clean up indigo denim from backstaining 	Not intended	Not intended	Not intended	Yes		(✔)	Yes	Yes	Level 3 (to be uploaded)
RUCORIT CBL	Blend of alkali and bleaching agents	Uncharged	Cleaning and bleaching	Universal cleaning and bleaching agent after various kinds of pre- treatment steps with high non-petro chemical content	 Effective cleaning after bleaching and lasering process steps It allows to perform at low temperature, starting from 40°C Highlights white areas creating a better blue/white contrast 	Not intended	Not intended	Not intended	Yes	Screened Chemistry certified	✓	Yes	Yes	Level 3
RUCORIT X-HYP	Inorganic salt	Uncharged	Bleaching	Basis compound for Hy- pNo bleaching as eco- logically far superiour alternative both to po- tassium permanganate and sodium hypochlori- te with high non-petro chemical content	 Basis component for HypNO bleaching compound as PP spray substitute and hypochlorite alternative No unpleasant, acid smell Ecologically superiour alternative both to potassium permanganate and sodium hypochlorite together with additive components Provides consistency of bleaching effects at high numbers of garments No danger of fabric damage when properly applied 	Not intended	Yes	Yes	Yes	Screened Chemistry certified		Yes	Yes	Level 3
RUCORIT X-NOCL	Organic and inorganic compounds	Uncharged	Bleaching	Additive component to HypNo basis compo- nent as halogen-free alternative to hypo- chlorite bleaching with high non-petro chemical content	 Additive component to HypNO basic component as hypochlorite alternative Halogen-free No unpleasant, acid smell 	Not intended	Not intended	Not intended	Yes	Screened Chemistry certified	√	Yes	Yes	Level 3

Product	Chemical Basis	lonic character	Function relevant to denim	Short description	Benefits, key characteristics	Suitable for padding	Suitable to be sprayed by spray gun	Suitable to be applied by spray / fog / nebulization system	Suitable in classical garment drum washing ma- chines	Actual application at Scivera for Screened Chemistry	bluesign® APPROVED	Standard 100 by OEKO-TEX® compliance class I-IV	ZDHC compli- ant (Contained in RUDOLF ZDHC positive list) RI 15/2014 Edition 4.0	Actual ZDHC Chemical Gateway Con- formity level
RUCORIT X-NOPP	Organic and inorganic compounds	Uncharged	Bleaching	Additive component to HypNo basis component as heavy metal-free alternative to PP spray local bleaching with high non-petro chemical content	 Additive component to HypNO basic component as PP spray substitute Free of heavy metals No unpleasant, acid smell Good visibility at manual spray Easily discharged after application at manual spray by subsequent drying and after-treatment 	Not intended	Yes	Yes	Yes	Screened Chemistry certified	✓	Yes	Yes	Level 3
RUCOLASE® KAT	Catalase	Uncharged	Peroxide removal	Speciality product for removing peroxide residues subsequent to hydrogen peroxide bleach in order to avoid catalytic damages with high non-petro chemical content	 Reliable removal of residual peroxide after peroxide bleach resp. HypNo bleach with peroxide addition of sulphur black dyed garments Easy to dose Foam-free Optimum efficiency from 20 °C to 50 °C Optimum application range between pH 4 - pH 10 	Not intended	Not intended	Not intended	Yes		✓	Yes	Yes	Level 3
RUCOLASE® X-ZSS	Acid cellulase for bio-po- lishing	Uncharged	Bio-polishing	Superstrong biocatalyst based on acid cellula- se for bio-polishing in order to achieve highly durable antipill finish of cellulosics with high non-petro chemical content	 Biocatalyst for the removal of pills and for the permanent antipill finishing of cellulosic fibres For the gentle production of wash-out effects Successful only at optimum temperature, pH and time control Only effective in combination with surface mechanics Removes pills, fibrils and loose fibres through biocatalytic degradation of the cellulose Solution to quality defects, such as fluffiness and pilling Genuine finishing process for first-class surface look and hand feel improvement Wash-resistant effects Enzyme stop by the addition of alkalis or oxidising agents or by temperature increase 	No	Not intended	Not intended	Yes		(✔)	Yes	Yes	Level 3
RUCOGEN® X-DAB	Preparation of fatty alcohol ethoxylates and polymers	Non-ionic	Washing with anti- backstaining	Excellent washing, dispersing and soil sus- pending agent with high level anti-backstaining properties	 Speciality product for reducing backstaining of indigodyed denim Applicable for all fibre types in all treatment steps of jeans washing Excellent dispersing and soil suspending properties especially for indigo bleeding Excellent washing power Very good suitability for cleaning denim material stained by indigo redeposition Suitable for drum washing machines with high liquor turbulence No unpleasant odour Not an enzyme poison 	No	Not intended	Not intended	Yes	Screened Chemistry certified	(✔)	Yes	Yes	Level 3
RUCOGEN® UPCYCLE RNB	Preparation of fatty alcohol ethoxylates and polymers from recycled PET	Non-ionic	Washing with anti- backstaining	Anti-backstainer with excellent washing, dispersing and soil suspending performance based on polymers from rPET with high non-petro chemical content	 Excellent washing power Very good suitability for cleaning denim material stained by indigo redeposition Most effective avoidance of backstaining by indigo 	No	Not intended	Not intended	Yes		*	Yes	Yes	Level 3

Special	ities													
Product	Chemical Basis	lonic character	Function relevant to denim	Short description	Benefits, key characteristics	Suitable for padding	Suitable to be sprayed by spray gun	Suitable to be applied by spray / fog / nebulization system	Suitable in classical garment drum washing ma- chines	Actual application at Scivera for Screened Chemistry	bluesign® APPROVED	Standard 100 by OEKO-TEX® compliance class I-IV	ZDHC compli- ant (Contained in RUDOLF ZDHC positive list) RI 15/2014 Edition 4.0	Actual ZDHC Chemical Gateway Con- formity level
RUCO®- SPECIAL LPR	Inorganic and organic com- pounds	Uncharged	Laserpriming/boosting	Unique laser primer for garments and fabrics with high laser-boos- ting and energy saving potential without remar- kable fibre damage with high non-petro chemical content	 Excellent laser priming effect with high energy saving potential Strongly enhances laser effect both on indigo and sulphur dyed materials Suitable both for application on garments and fabrics Minimised fibre damage even at long-term storage of primed fabrics 	Yes, with specific precaution	Yes	Yes	Yes		✓	Yes	Yes	Level 3
RUCO®- SPECIAL LPC	Organic com- pound	Uncharged	Catalysing of laser-priming/- boosting	Laser primer catalyst with top enhancement of laser primer with high non-petro chemical content	Clear catalysis function for the laser prime effect with RUCO®-SPECIAL LPR	Yes, with specific precaution	Yes	Yes	Yes		✓	Yes	Yes	Level 3
RUCO®- SPECIAL DPR	Preparation of organic acids and salts	Uncharged	Fibre protection at laser boosting	Speciality product for pH buffering and simulta- neously strongly efficient fibre protection function at laser boosting	 Reduces the fibre damage during laser priming effects when used in recipes for foam coating or padding of the laser priming system consisting of RUCO®-SPECIAL LPR and RUCO®-SPECIAL LPC 	Yes	Not intended	Not intended	Not intended		✓	Yes	Yes	Level 3
RUCO®- COAT FO 4010	Preparation of surfactants	Amphoteric	Foaming agent for foam coatings	Strong and stable high quality foaming agent for minimum application of laserprimer system by foam coating	 Compatible with many textile auxiliaries For foam coating/application of the laser priming system consisting of RUCO®-SPECIAL LPR and RUCO®- SPECIAL LPC 	Not intended	Not intended	Not intended	Not intended		(✔)	Yes	Yes	Level 3
RUCO®- SPECIAL LSM	Compound of organic and anorganic acids and poly-carboxylate	Anionic	Creation of natural laser effects, laser- smoothing	Unique laser smoother for natural laser effects mimicking manual scraping with high non- petro chemical content	 Achieves stronger white contrast compared to without lasersmoother, but enhancement of the laser effect in a natural way This effect makes it especially suitable for medium to dark shades on which soft, natural contrasts are required Effects mimick manual scraping Facilitates laser dust removal which results in more blueish look Represents an alternative to PP spray Saves laser energy as it increases effect compared to untreated at same settings Increases productivity by time saving Suitable for the use in classical garment drum washing machines Suitable for the use in closed drum washing machines with spray/fog/nebulization system Suitable for indigo and/or sulphur dyed denim Suitable both for application on garments and fabrics 	Yes, with specific precaution	Not intended	Yes	Yes		V	Yes	Yes	Level 3
HYDROCOL® X-KNI	Polymer (Preparation of polyamide)	Cationic	Indigo fixing / fastness impro- ving / pale- dark effects	Powerful indigo fixing agent without necessity to cure and agent for achieving highly detectable pale-dark effects on denim garments	 Fixing agent for indigo dyeings Can be used in garment finishing to obtain pale-dark effects Very good effects are obtained by spraying 200 - 500 g/l HYDROCOL® X-KNI (spray 30 - 50 %, dry) on untreated denim fabric Especially increases the wash fastness of denim 	Yes	Yes	Yes	Yes		(✔)	Yes	Yes	Level 3
HYDROCOL® X-WRF NEW	Polyurethane	Cationic	Fastness improving	Special fastness improving agent for distinct enhancement especially of the wet rubbing/crocking fastness	 Improves the wet and dry rub fastness of dyeings and prints Provides a soft hand feel 	Yes	Not intended	Yes	Yes		✓	Yes	Yes	Level 3
RUCOFIN® DARK	Polysiloxane compound	Cationic	Colour intensification / Blocking agent at bleaching	Efficient colour intensi- fication product without influencing the hand feel effect distinctly into the direction of a soft touch	 Intensifies colour depth of the whole garment when applied by bath Locally applied on garments by brush before bleaching it allows reserving effects Does not influence the garments hand feel in the direction of a distinctly soft touch 	Yes	Not intended	Not intended	Yes		(✔)	Yes	Yes	Level 3

Specia	alities													
Product	Chemical Basis	lonic character	Function relevant to denim	Short description	Benefits, key characteristics	Suitable for padding	Suitable to be sprayed by spray gun	Suitable to be applied by spray / fog / nebulization system	Suitable in classical garment drum washing machines	Actual application at Scivera for Screened Chemistry	bluesign® APPROVED	Standard 100 by OEKO-TEX® compliance class I-IV	ZDHC compli- ant (Contained in RUDOLF ZDHC positive list) RI 15/2014 Edition 4.0	Actual ZDHC Chemical Gateway Conformity level
RUCOLAN® X-IVS	Alkylaryl sulphonate	Anionic	Protection against yellowing	Safe and effective protection agent for avoidance of gas- fading induced indigo destruction and storage yellowing	 Speciality product for protecting indigo-dyed denim against yellowing and for preventing storage yellowing on polyamide Improvement of the ozone and gas fading fastness properties of indigo-dyed denim pH value for application for denim 4 - 5 Very suitable for the combination with PERRUSTOL® X-IPS NEW (two bath method) or PERRUSTOL® X-MMX CONC (one bath method) as pronounced indigo protective softening agents 	Yes	Not intended	Not intended	Yes		(✓)	Yes	Yes	Level 3
RUCO®- PLAST BO	Polyvinyl alcohol	Non-ionic	Binding/ Additive for pleat fixation	Useful additive for 3D pleat formation together with resins and speciality product for enhancing the scrapeability of denim	 Hand feel modifier and filling agent, especially as additive to resin finishing liquors Improves the fastness to dry rubbing of dyeings Suitable for temporary anti-curling finishes Compatible with most hand feel modifiers and softening agents Forms a very hard, non-elastic, transparent film Not wash-resistant Improves distinctly the scrapeability at manual scraping 	Yes	Yes	Yes	Not intended		(✔)	Yes	Yes	Level 3
VEROLAN® NAD	Preparation of alkyl phosphonate, organic and inorganic salts	Anionic	Corrosion protection	Effective corrosion inhibitor for metal parts with high dispersing capacity	 Organic complexing agent for the sequestration of hardness salts and process-disturbing metal ions Very high calcium and magnesium binding capacity Very high iron binding capacity Good dispersing capacity Easily rinsed out Low-foaming Prevents the corrosion of the metal parts of garments Stock liquors should not be prepared in nor be added through copper, brass or galvanized receptacles or pipes 	Not intended	Not intended	Not intended	Yes		(✓)	Yes	Yes	Level 3
RUCOLIN® JET	Polyacryl amide	Anionic	Crease prevention	Very good running crease inhibitor for all processes and speciality product for making liquors suitable for padding and lick roll processes by formation of a stable uniform film	 Special product for creation of a uniform liquor film on metal lick rollers/kiss rollers Suitable for the combination with RUCO®-SPECIAL LPR/RUCO®-SPECIAL LPC when applied on fabrics by lick roll/kiss roll application Crease prevention agent for bleaching and dyeing CO, CV, and PES as well as their blends 	Not intended	Not intended	Not intended	Yes		✓	Yes	Yes	Level 3

Hand fe	el creatio	n, softer	ning, bindi	ng, coating effe	cts									
Product	Chemical Basis	lonic character	Function relevant to denim	Short description	Benefits, key characteristics	Suitable for padding	Suitable to be sprayed by spray gun	Suitable to be applied by spray / fog / nebulization system	Suitable in classical garment drum washing machines	Actual application at Scivera for Screened Chemistry	bluesign® APPROVED	Standard 100 by OEKO-TEX® compliance class I-IV	ZDHC compli- ant (Contained in RUDOLF ZDHC positive list) RI 15/2014 Edition 4.0	Actual ZDHC Chemical Gateway Con- formity level
PERRUSTOL® DWC	Fatty acid condensation product	Cationic	Fatty acid condensa- tion product conditioning in tumble-dryer	Innovative fatty acid condensation product conditioning in bag with high water saving potential	 Sustainable, innovative garment conditioning in tumble-dryer Slightly fatty hand feel No classical wet softening process necessary Dry application in tumble-dryer 	No	No	No	No		(✔)			Level 3 (to be uploaded)
PERRUSTOL® X-IPS NEW	Fatty acid condensation product	Cationic	Fatty acid condensation product softening	Fatty acid condensation product softening agent with special function of protecting indigo, low- foaming and stable to yellowing up to 170°C	 Special soft hand feel agent for the treatment of indigodyed denim and jeans articles made from CO and CO/elastane blends For the universal soft hand feel finishing of woven or knitted fabrics as well as garments of all fibre types Supports the prevention of ozone-induced gas fading of indigo during storage (ozone gas in environment) 	Yes	Not intended	Yes	Yes	Pending	(✔)	Yes	Yes	Compliant, but not registered
PERRUSTOL® X-MMX CONC	Fatty acid condensation product	Weakly cationic	Fatty acid condensation product softening	Biomaterial based softening agent concentrate with self-emulsifying property, highly hydrophilic and hydrophilising, stable to yellowing providing a soft, natural touch with high non-petro chemical content	 Hydrophilic, self-emulsifying, liquid softener concentrate for cellulosic fibres or their blends with synthetic fibres Resistant to yellowing at drying temperatures up to 170°C, preliminary trials are recommended Supports the prevention of ozone-induced gas fading of indigo during storage (ozone gas in environment) 	Yes	Not intended	Yes	Yes	Pending	✓	Yes	Yes	Level 3
PERRUSTOL® X-VNO NEW	Fatty acid condensation product	Non-ionic	Fatty acid condensation product softening	Fatty acid condensa- tion product softening agent with hydrophobic character and perfect combinability with repel- lency performance finis- hes ensuring a smooth touch	 Excellent soft hand feel on cellulose-containing substrates Applicable in resin finishing liquors; preliminary trials are recommended Compatible with many optical brighteners; preliminary trials are recommended Highly resistant to yellowing, even at high drying temperatures 	Yes	Not intended	Yes	Yes		√	Yes	Yes	Level 3
RUCOFIN® X-HSX	Preparation of a fatty acid condensa- tion products, silicone and polyethylene	Cationic	Silicone softening	Compound softening agent of FAC, polyethylene and silicone with maintaining a very high absorbency level and protection against mechanical damage, soft, fluffy and smooth touch	 Softening and lubricating agent Does not impair the fabric's hydrophilic properties, even after extreme drying processes Confers a smooth, very soft fluffy hand feel and, with higher application quantities, a superfattening effect Improves the sewability and prevents loop and sewing damage Low-foaming, suitable for jet application Resistant to yellowing up to drying temperatures of 170° C Applicable in resin finishing liquors, preliminary trials are recommended 	Yes	Not intended	Yes	Yes		✓	Yes	Yes	Level 3
RUCOFIN® X-WSE NEW	Preparation of fatty acid condensation product, poly- ethylene and polysiloxane compound	Non-ionic	Silicone softening	Compound softening agent of FAC, polyethylene and silicone for soft, surface smooth handfeel with good combinability with optical brightening agents	 Confers soft, surface-smooth hand feel Confers inner softness Improves the abrasion resistance Improves the sewability In resin finishing liquors applicable, preliminary trials are recommended Resistant to yellowing up to drying temperatures of < 170°C Compatible with many optical brighteners; preliminary trials are recommended 	Yes	Not intended	Yes	Yes		(✔)	Yes	Yes	Level 3
RUCOFIN® X-GST	Polysiloxane compound, micro emulsion"	Cationic	Silicone softening	Durable, hydrophilic silicone softening and smoothing agent for all fibre types with silky and voluminous handfeel effects. Ecologically optimized	 Confers a silky, soft, voluminous and smooth handfeel Hydrophilic properties of the treated textiles are maintained High resistance to yellowing Confers effects resistant to mild washing Increases elasticity and elastic recovery of knitwear Improves anticrease properties, tear strength and abrasion resistance in resin finishing Improves sewability Applicable in wide pH range (pH 1 - 12) High shear stability * 	Yes	Yes	Yes	Yes		(a)	Yes	Yes	Level 3 (to be uploaded)

Product	Chemical Basis	lonic character	Function relevant to denim	Short description	Benefits, key characteristics	Suitable for padding	Suitable to be sprayed by spray gun	Suitable to be applied by spray / fog / nebulization system	Suitable in classical garment drum washing machines	Actual application at Scivera for Screened Chemistry	bluesign® APPROVED	Standard 100 by OEKO-TEX® compliance class I-IV		Actual ZDHC Chemical Gateway Con- formity level
RUCOFIN® X-GWA NEW	Amido- functional polysiloxane compound, microemul- sion	Non-ionic	Silicone softening	Silicone softening agent (microemulsion) with highest process safety, over-dyeability and highest hydrophilic behaviour giving a very natural, dry and soft touch	 Highly process-secure, hydrophilic, jet-stable silicone softener for textiles of all fibre types, especially for synthetics or blends with cellulosic fibres Confers natural hand feel effects with inner softness Hydrophilic character High resistance to yellowing High shear stability and process safety (jet-stable) Applicable in a wide pH range (pH 1 - 9) Compatible with many optical brighteners Compatible with electrolytes, suitable for resin finishing 	Yes	Not intended	Yes	Yes	Screened Chemistry certified	(✔)	Yes	Yes	Level 3
RUCOFIN® X-GWE	Polysiloxane compound, macroemul- sion	Non-io- nic, weakly cationic	Silicone softening	Silicone softening agent (macro emulsion) with perfect colour inten- sification and colour maintaining properties, hydrophobic and highly durable to washing	 Wash-resistant, highly concentrated silicone softener, confers an excellent soft hand feel, surface smoothness and intensifies colours Confers a very soft, velvety hand feel Confers surface smoothness and lustre Hydrophobic, wash-resistant finishing effects Imparts colour-intensifying properties (jet black effect) 	Yes	Not intended	Yes	Yes		(✓)	Yes	Yes	Level 3
RUCOFIN® X-GWM	Polysiloxane compound, microemul- sion	Non-ionic, weakly cationic	Silicone softening	Silicone softening agent (microemulsion) providing elastomeric, smooth hand feel effects due to its crosslinking character, highly hydro- phobic and extremely durable to washing	 Highly durable silicone softener with super soft hand feel effects similar to elastomers Especially suitable for stretch articles Increases elasticity, elastic recovery and dimensional stability Low tendency to yellowing, even at higher drying temperatures 	Yes	Not intended	Yes	Yes		(✓)	Yes	Yes	Level 3
RUCOFIN® X-GWS	Polysiloxane compound, microemul- sion	Non-ionic, weakly cationic	Silicone softening	Silicone softening agent (microemulsion) for megasoft hand feel effects, hydrophobic and durable to washing	 Universal, durable, concentrated silicone softening agent Confers excellent hand feel effects and resilience to all fibre types. Distinctly increases resilience, dimensional stability and elastic recovery Improves the crease recovery and self-smoothing properties Intensifies the colour impression Low tendency to yellowing Excellent durability to washing Electrolyte-resistant, compatible with resin finishing agents 	Yes	Not intended	Yes	No		(✓)	Yes	Yes	Level 3
RUCOFIN® X-HST	Polysiloxane compound, microemul- sion	Non-ionic	Silicone softening	Silicone softening agent (microemulsion) confering a unique soft and surface smooth hand feel, hydrophilic and resistant to yellowing	 Confers a special full, soft hand feel and surface smoothness Hydrophilic character High resistance to yellowing Excellent stability to processes and shear forces Extremely high pH stability (pH 1 - 12) Compatible with common optical brighteners Good electrolyte compatibility, suitable for resin finishing liquors 	Yes	Yes	Yes	Yes		(✔)	Yes	Yes	Compliant, but not registered
RUCOFIN® X-SIQ NEW	Quaternary polysiloxane compound, microemul- sion	Cationic	Silicone softening	Silicone softening agent (microemulsion), very high process safety, pH stability, providing a natural hand feel with high inner softness	textiles of all fibre types Confers a very soft, voluminous and smooth hand feel	Yes	Not intended	Yes	Yes		(✓)	Yes	Yes	Level 3

Product	Chemical Basis	lonic cha- racter	Function relevant to denim	Short description	Benefits, key characteristics	Suitable for padding	Suitable to be sprayed by spray gun	Suitable to be applied by spray / fog / nebulization system	Suitable in classical garment drum washing ma- chines	Actual application at Scivera for Screened Chemistry	bluesign® APPROVED		ZDHC compli- ant (Contained in RUDOLF ZDHC positive list) RI 15/2014 Edition 4.0	Actual ZDHC Chemical Gateway Con- formity level
RUCO®-PUR X-SLY	Polyurethane	Slightly cationic	Hand feel creation	Hand feel creation agent, hydrophilizing agent and special softe- ning agent, supporting the natural absorbency of cellulosic and man made fibre mate- rials whilst creating a PU-specific soft hand feel with a high inner softness	 Hydrophilising agent and special softener for garments and fabrics of all fibre types Creates a PU-specific soft hand feel with a high inner softness Hydrophilic properties, resistant to mild washing, are imparted to articles made of synthetics Confers good antistatic properties to synthetics For dyed or white goods Does not require curing (no oven treatment) Easily overdyed (easy-repair function) Increases the elasticity and elastic recovery of the fabric Versatile combinations with other finishing products possible; pretrials for testing the liquor compatibility are recommended Wash-permanent soft hand feel effects can be created on the substrate in connection with reactant crosslinking agents and respective catalysts 	Yes	Yes	Yes	Yes		(✔)	Yes	Yes	Compliant, but not registered
FERAN® X-SSG 200	Silicic acid	Cationic	Hand feel creation / Anti-slip finish	Hand feel creation agent, antislip finish pro- duct for special hand- feels like e.g. peach- skin and other velvety touches in combination with silicone softening agents	 Special hand feel creation Creates peachskin-like hand feel on suitable articles in combination with silicone softening agents Excellent anti-puckering effect agent for elastane containing denim Increases the adhesion between EL and core spun fibres from CEL and synthetics Anti-slip agent for finishes imparting a soft hand feel Excellent anti-slip effect Application in resin finishing liquors possible Slight delustring of fabric appearance 	Yes	Not intended	Not intended	Yes		(✓)	Yes	Yes	Level 3
RUCO®- PLAST HLS	Polyvinyl- acetate	Non-ionic	Hand feel creation / Stiffening effects	9	agent for all fibre types	Yes	Yes	Yes	No		(✓)	Yes	Yes	Level 3
RUCO®- PLAST X-PCA	Polyacrylate	Non-ionic	Binding / Special effects	Binder and special effect creator based on a soft, laserable polymer for special effects in terms of touch and laser effects, non-ionic, based on polyacrylate polymer	 Soft, laserable polymer for special hand feel effects Significantly increases anti-pill and velcro-resistant effects Heat-reactive hence self-crosslinking Obtains resistant-to-washing and dry-cleaning effects Forms a soft, flexible, transparent and slightly tacky film 	Yes	Yes	Yes	No		(✔)	Yes, but only class II-IV ¹⁾	Yes	Compliant, but not registered
RUCO®- COAT AC 3110	Preparation of polyacrylates	Non ionic, slightly anionic	Coating effects - Acrylate	Coating effect component based on polyacrylate polymer	 Aqueous acrylic ester dispersion for paste or foam coatings, self-crosslinking For a soft, resilient/elastic film Suitable for base or multicoats Coatings are wash-resistant Suitable as pigment binder with high pigment binding capacity and durability Excellent suitability for combination with resins for creation of 3D pleats like RUCON® X-FAC or RUCON® X-FNF in order to minimize loss of tensile strength usually caused by crosslinking resins 	No	Yes	Yes	Not intended		(✓)	Yes	Yes	Level 3

Without Appendix 6 and the accompanying Appendix 7: Suitable for Product Classes II - IV. For Product Class I suitability must be checked under the individual application conditions on the finished textile. Including Appendix 6 and accompanying Appendix 7: Suitability for Product classes I - IV must be checked under the individual application conditions on the finished textile

Product	Chemical Basis	lonic cha- racter	Function relevant to denim	Short description	Benefits, key characteristics	Suitable for padding	Suitable to be sprayed by spray gun	Suitable to be applied by spray / fog / nebulization system	Suitable in classical garment drum washing ma- chines	Actual application at Scivera for Screened Chemistry	bluesign® APPROVED	Standard 100 by OEKO-TEX® compliance class I-IV	ZDHC compli- ant (Contained in RUDOLF ZDHC positive list) RI 15/2014 Edition 4.0	Actual ZDHC Chemical Gateway Con formity level
RUCO®- COAT PU 1110	Aqueous, aliphatic polyether polyurethane dispersion	Anionic	Coating effects - Polyurethane	Coating effect component based on polyurethane polymer	 For paste coatings with high resistance to hydrolysis and soft hand feel Good hydrostatic head in a single pass Very soft, sticky, transparent, highly elastic film Suitable for the base coat with multilayer coatings Highly stable to hydrolysis 	No	Yes	Not intended	Not intended		(✔)	Yes	Yes	Level 3
RUCO®- COAT TH 5020	Pre-neutrali- sed polyac- rylate	Anionic	Thickener for coating pastes	Easy-to-handle thicke- ner for coating pastes	 Synthetic thickener for aqueous polymeric dispersions Excellent for post-thickening pastes Even small quantities lead to a considerable increase in the viscosity Swells rapidly in water, has a strongly thickening effect 	No	Yes	Not intended	Not intended		✓	Yes	Yes	Level 3
RUCO®- COAT X-ELA*	Blend of polymer dis- persion and pigments	Anionic	Creation of elastic coating effects on all kinds of garments and achievement of brilliant effect when combined with mechanical treatment without danger of cracking	Elastic fashion coating effect compound with high stability against cracking under stretch	 Ready-to-use compound Contains filling agent Can be coloured by adding pigment dyestuff Resistant to 40°C mild washing conditions Suitable to be sprayed on garments by spray gun Suitable to be applied by paint brush Can also be used by classical coating with paste after it has been thickened by a suitable thickener 	No	Yes	No	No					
RUCO®- COAT X-LTH*	Blend of polymer dis- persion and pigments	Anionic	Creation of glossy leather coating effects on all kinds of garments in conjunction with mechanical treatment	Leather-like, shiny fashion coating effect compound with excellent brilliance	 Ready-to-use compound Contains filling agent Can be coloured by adding pigment dyestuff Resistant to 40°C mild washing conditions Suitable to be sprayed on garments by spray gun Suitable to be applied by paint brush Can also be used by classical coating with paste after it has been thickened by a suitable thickener, e.g. RUCO®-COAT TH 5020 	No	Yes	No	No					
RUCO®- COAT X-PRL*	Acrylate ba- sed polymer dispersion	Non-io- nic, slightly anionic	Creation of reflective pearl coating effects on all kinds of garments	Reflecting pearl fashion coating effect compound	 Ready-to-use compound Can be coloured by adding pigment dyestuff Resistant to 40°C mild washing conditions Suitable to be sprayed on garments by spray gun Suitable to be applied by paint brush Can also be used by classical coating with paste after it has been thickened by a suitable thickener, e.g. RUCO®-COAT TH 5020 	No	Yes	No	No					
RUCO®- COAT X-WAX	Blend of poly- mer disper- sion, wax and polysiloxane compound	Non-io- nic, slightly cationic	Creation of waxy coating effects on all kinds of garments	Strong wax-like fashion coating effect compound	 Ready-to-use compound Achieves pronounced waxy touch effects Can be coloured by adding pigment dyestuff Suitable to be sprayed on garments by spray gun Suitable to be applied by paint brush 	No	Yes	No	No		(✔)	Yes		

Available from
RUDOLF DURANER KIMYEVI MADDELER TICARET VE SANAYI A.S.
Organize Sanayi Bölgesi
Sarı Cadde 4. Sokak No: 2
Nilüfer / Bursa
TURKEY
Phone: +00 (0) 224 24285-40 Phone: +90 (0) 224 24285-40 E-Mail: rudolf-duraner@rudolf-duraner.com

3D ple	ats, easy c	are												
Product	Chemical Basis	Ionic cha- racter	Function relevant to denim	Short description	Benefits, key characteristics	Suitable for padding	Suitable to be sprayed by spray gun	Suitable to be applied by spray / fog / nebulization system	Suitable in classical garment drum washing ma- chines	Actual application at Scivera for Screened Chemistry	bluesign® APPROVED	Standard 100 by OEKO-TEX® compliance class I-IV	ZDHC compli- ant (Contained in RUDOLF ZDHC positive list) RI 15/2014 Edition 4.0	Actual ZDHC Chemical Gateway Con- formity level
RUCON® X-FAC	Modified N-methylol dihydroxyet- hylene urea with incorpo- rated catalyst system	Uncharged	Permanent pleat fixation / Easy care finish /Creation of 3D effects	Resin for 3D pleat formation, low- formaldehyde	 Crosslinking agent for the low-formaldehyde resin finishing of woven and knitted fabrics made from cellulosic fibres and their blends with synthetic fibres Suitable for made-up garments Does not require an additional catalyst system Results in very low formaldehyde values if cured adequately Good easy-care properties and high dimensional stability of the finished goods Produces wash-and-wear effects that are stable at the boil No or only slight changes of shade Produces chlorine-resistant finishes Causes lower losses of tear fastness than conventional reactant crosslinking agents Highly compatible with most auxiliaries used in resin finishing, such as additives, softening and filling agents, water, oil and soil repellent agents and brighteners Perfectly suitable for creating 3D effects Strong blocking agent for indigo when oxidants are applied subsequently to 3D tagging In case of oxidant application after 3D tagging: Preferably for dark shades (avoid on lighter shades due to too strong contrasts at the 3D pleat area bleaching) For 3D effect creation on lighter shades: RUCON® FNF should be preferred 	Yes	Yes	Yes	Yes		(v)	Yes, but only class II-IV ¹⁾	Yes	Level 3
RUCON® X-FNF	Modified dihy- droxyethylene urea, formal- dehyde-free		Permanent pleat fixation / Easy care finish / Creation of 3D effects	Resin for 3D pleat formation, formaldehyde-free	 Crosslinking agent for a formaldehyde-free resin finishing of textiles made of cellulosic fibres or their blends with synthetic fibres. High liquor stability even with strong catalysts Results in formaldehyde-free finishing effects if catalysed and cured correctly Complies with the requirements of zero formaldehyde according to Standard 100 by OEKO-TEX®, class I Perfectly suitable for creating 3D effects Blocking agent for indigo when oxidants are applied subsequently after 3D tagging (particularly suitable for light to medium washes) Avoidance of undesired strong contrasts in the 3D pleat area when bleaching after 3D tagging RUCON® X-FAC would give too strong contrasts in the 3D pleat area 	Yes	Yes	Yes	Yes		(✓)	Yes	Yes	Level 3

1. Without Appendix 6 and the accompanying Appendix 7:
Suitable for Product Classes II - IV. For Product Class I suitability
must be checked under the individual application conditions on the
finished textile. Including Appendix 6 and accompanying Appendix 7:
Suitability for Product classes I - IV must be checked under the
individual application conditions on the finished textile

Effect fu	unctionali	ties												
Product	Chemical Basis	lonic cha- racter	Function relevant to denim	Short description	Benefits, key characteristics	Suitable for padding	Suitable to be sprayed by spray gun	Suitable to be applied by spray / fog / nebulization system	Suitable in classical garment drum washing ma- chines	Actual application at Scivera for Screened Chemistry	bluesign® APPROVED	Standard 100 by OEKO-TEX® compliance class I-IV	ZDHC compli- ant (Contained in RUDOLF ZDHC positive list) RI 15/2014 Edition 4.0	Actual ZDHC Chemical Gateway Con- formity level
RUCO®-DRY X-ECO PLUS	Hyperbran- ched and line- ar polymers	Cationic	Repellency / Stain protection	Very effective fluorine- free water-repellent agent with high resistan- ce to washing in combi- nation with boosters and good level of biobased carbon content	 Very effective water-repellent agent for finishing fabrics and garments of all fibre types High resistance to washing in combination with boosters High level of biobased carbon content 	Yes	Yes	Yes	Yes		✓	Yes	Yes	Level 3
RUCO®-DRY X-ECO ADV	Hyperbran- ched and line- ar polymers	Cationic	Repellency / Stain protection	Highly effective fluorine- free water-repellent agent for finishing fabrics of all fibre types with high resistance to washing in combination with boosters and ex- cellent level of biobased carbon content	 Highly effective water-repellent agent for finishing fabrics and garments of all fibre types Imparts very good water-repellent properties High resistance to washing in combination with boosters Excellent level of biobased carbon content 	Yes	Yes	Yes	Yes	Screened Chemistry certified	•	Yes	Yes	Level 3
RUCO®-LINK X-RCX	Blocked poly- isocyanate	Cationic	Booster for combination predominantly with fluorine- free repellency agents	Non-yellowing booster, low curing (150°C) crosslinking component preferably for fluorine-free repellents like e.g. RUCO®-DRY X-ECO PLUS and RUCO®-DRY X-ECO ADV	 Crosslinking component for RUCO®-DRY X-ECO PLUS and RUCO®-DRY X-ECO ADV for hydrophobic and soil-repellent fluorocarbon-free finishes Low curing temperature (approx. 150 °C) necessary Free of flammable solvents No yellowing 	Yes	Yes	Yes	Yes	Screened Chemistry certified	(✔)	Yes	Yes	Level 3
RUCO®-LUB KMN 400	Polyethylene	Non-ionic	Mechanical / technological Improvement	Improving agent for mechanical properties like tensile strength and abrasion resistance and smooth hand feel additive	 Additive for resin finishing for reducing the loss in tensile strength and abrasion resistance as well as for improving the crease recovery Softener for improving the sewability Reduces losses in tensile strength and abrasion resistance Increases the dry and wet crease recovery Improves the sewability and avoids loop damage No yellowing even at extremely high temperatures Confers a soft, supple hand feel 	Yes	Yes	Yes	Yes		✓	Yes	Yes	Level 3
RUCO®-BAC AGP	Preparation of inorganic salts and surfactants	Anionic	Hygiene and freshness	Hygienic and freshness finishing agent with non-migrating bacteriocidal and slightly fungicidal effects, highly effective and resistant to washing and dry cleaning even at very low quantities and without binder		Yes	Not intended	Yes	Yes		√	Yes	Yes	Level 3

Effect	functiona	lities												
Product	Chemical Basis	lonic cha- racter	Function relevant to denim	Short description	Benefits, key characteristics	Suitable for padding	Suitable to be sprayed by spray gun	Suitable to be applied by spray / fog / nebulization system	Suitable in classical garment drum washing ma- chines	Actual application at Scivera for Screened Chemistry	bluesign® APPROVED	Standard 100 by OEKO-TEX® compliance class I-IV	ZDHC compli- ant (Contained in RUDOLF ZDHC positive list) RI 15/2014 Edition 4.0	Actual ZDHC Chemical Gateway Con- formity level
RUCO®-PUR X-SLR	Reactive polyether polyurethane	Cationic	Binding /Shape retaining	Durable shape retaining effects, resilience and elasticity support with soft and flexible hand feel, durable effects when dried at 150°C, based on polyurethane polymer, cationic	 Self-crosslinking polyurethane Provides excellent antisagging/antibagging properties Reduces the tendency to pill and snag Improves tear strength, tensile strength and abrasion resistance Suitable for chintz finishes durable to washing Increases resilience and elastic recovery Improves the crease recovery when used in resin finishing Improves the dry rub-fastness Does not affect the hydrophilic properties of the finished fabric Forms a soft, elastic, opaque and tack-free film Develops elegant lustre in garment finishing Very good anti-fraying effect for intentionally damaged areas in denim 	Yes	Yes	Yes	Yes		✓	Yes	Yes	Level 3
RUCO®-PUR X-FSA	Polyester- polyurethane dispersion	Anionic	Binding / Special effect	Durable shape retaining effects, resilience and elasticity support with soft and flexible hand feel, durable effects when dried at 120°C, based on polyurethane polymer, anionic	 Versatile wash-resistant finishing agent for garments and fabrics in order to provide shape-retaining antibagging/antisagging effects Hand feel creating agent for fashion garments Suitable for all fibre types and blends 	Yes	Yes	Yes	Not intended		(✔)	Yes	Yes	Compliant, but not registered

✓ Approved✓ Being finalized

Index of HUB 1922 po	ortfolio content			
Product matchcode	Product group name	Page	Function	Function area
AC 3110	RUCO®-COAT	14	Coating effects - Acrylate	Hand feel creation, softening, binding, coating effects
AGP	RUCO®-BAC	20	Hygiene and freshness	Effect functionalities
BBE	RUCORIT	2	Enzymatic compound for bio- bleaching	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning
ВО	RUCO®-PLAST	8	Binding/Additive for pleat fixation	Specialities
CACL	RUCOLASE®	2	One-step desizing and stone-washing effects	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning
CBL	RUCORIT	2	Cleaning and bleaching	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning
CHPL	RUCOLASE®	2	Stone-washing effects	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning
DARK	RUCOFIN®	6	Colour intensification/Blocking agent at bleaching	Specialities
DFA	RUCOLASE®	2	Desizing	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleanin
DPR	RUCO®-SPECIAL	6	Fibre protection at laser-boosting	Specialities
ows	RUCOLASE®	2	Stone-washing effects without water level	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleanin
owc	PERRUSTOL®	10	Fatty acid condensation product conditioning in tumble-dryer	Hand feel creation, softening, binding, coating effects
FO 4010	RUCO®-COAT	6	Foaming agent for foam coatings	Specialities
HLS	RUCO®-PLAST	14	Hand feel creation/Stiffening effects	Hand feel creation, softening, binding, coating effects
JEA	RUCOLASE®	2	Desizing	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleanin
JET	RUCOLIN®	8	Crease prevention	Specialities
KAT	RUCOLASE	4	Peroxide inactivation	Specialities
KMN 400	RUCO®-LUB	20	Mechanical/ technological improvement	Effect functionalities
_PC	RUCO®-SPECIAL	6	Catalysing of laser-priming/-boosting	Specialities
LPR	RUCO®-SPECIAL	6		
		_	Laser-priming/-boosting	Specialities
_SM	RUCO®-SPECIAL	6	Creation of natural laser effects, laser-smoothing	Specialities
NAD	VEROLAN®	8	Corrosion protection	Specialities
PU 1110	RUCO®-COAT	16	Coating effects - Polyurethane	Hand feel creation, softening, binding, coating effects
TH 5020	RUCO®-COAT	16	Thickener for coating pastes	Hand feel creation, softening, binding, coating effects
UPCYCLE RNB	RUCOGEN®	4	Washing with anti-backstaining	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleanin
X-DAB	RUCOGEN®	4	Washing with anti-backstaining	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning
X-ECO ADV	RUCO®-DRY	20	Repellency/Stain protection	Effect functionalities
X-ECO PLUS	RUCO®-DRY	20	Repellency/Stain protection	Effect functionalities
X-ELA	RUCO®-COAT	16	Creation of elastic coating effects on all kinds of garments and achievemer of brilliant effect when combined with mechanical treatment without dange of cracking	
X-FAC	RUCON®	18	Permanent pleat fixation/Easy care finish/Creation of 3D effects	3D pleats, easy care
X-FNF	RUCON®	18	Permanent pleat fixation/Easy care finish/Creation of 3D effects	3D pleats, easy care
X-FSA	RUCO®-PUR	22	Binding/Special effect	Effect functionalities
X-GST	RUCOFIN®	10	Silicone softening	Hand feel creation, softening, binding, coating effects
X-GWA NEW	RUCOFIN®	12	Silicone softening	Hand feel creation, softening, binding, coating effects
K-GWE	RUCOFIN®	12	Silicone softening	Hand feel creation, softening, binding, coating effects
X-GWM	RUCOFIN®	12	Silicone softening	Hand feel creation, softening, binding, coating effects
X-GWS	RUCOFIN®	12	Silicone softening Silicone softening	Hand feel creation, softening, binding, coating effects
K-GWS K-HST	RUCOFIN®		Silicone softening Silicone softening	Hand feel creation, softening, binding, coating effects
x-HSX	RUCOFIN®	12	-	
		10	Silicone softening	Hand feel creation, softening, binding, coating effects
K-HYP	RUCORIT	2	Bleaching	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleanin
X-IPS NEW	PERRUSTOL®	10	Fatty acid con densation product softening	Hand feel creation, softening, binding, coating effects

Index of HUB 1922 portfolio content				
Product matchcode	Product group name	Page	Function	Function area
X-IVS	RUCOLAN®	8	Protection against yellowing	Specialities
X-KNI	HYDROCOL®	6	Indigo fixing/fastness improving/pale-dark effects	Specialities
X-LTH	RUCO®-COAT	16	Creation of glossy leather coating effects on all kinds of garments in conjunction with mechanical treatment	Hand feel creation, softening, binding, coating effects
X-MMX CONC	PERRUSTOL®	10	Fatty acid condensation product softening	Hand feel creation, softening, binding, coating effects
X-NOCL	RUCORIT	2	Bleaching	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning
X-NOPP	RUCORIT	4	Bleaching	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning
X-PCA	RUCO®-PLAST	14	Binding/Special effects	Hand feel creation, softening, binding, coating effects
X-PRL	RUCO®-COAT	16	Creation of reflective pearl coating effects on all kinds of garments	Hand feel creation, softening, binding, coating effects
X-RCX	RUCO®-LINK	20	Boosting / cross-linking predominantly of fluorine-free repellency agents	Effect functionalities
X-SIQ NEW	RUCOFIN®	12	Silicone softening	Hand feel creation, softening, binding, coating effects
X-SLR	RUCO®-PUR	22	Binding/Shape retaining	Effect functionalities
X-SLY	RUCO®-PUR	14	Hand feel creation	Hand feel creation, softening, binding, coating effects
X-SSG 200	FERAN®	14	Hand feel creation /Anti-slip finish	Hand feel creation, softening, binding, coating effects
X-VNO NEW	PERRUSTOL®	10	Fatty acid condensation product softening	Hand feel creation, softening, binding, coating effects
X-WAX	RUCO®-COAT	16	Creation of waxy coating effects on all kinds of garments	Hand feel creation, softening, binding, coating effects
X-WRF NEW	HYDROCOL®	6	Fastness improving	Specialities
X-WSE NEW	RUCOFIN®	10	Silicone softening	Hand feel creation, softening, binding, coating effects
X-ZSS	RUCOLASE®	4	Bio-polishing	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning



