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# Garment finishing auxiliaries

Product Overview - Version 16

## Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning

Product	Chemical Basis	Ionic 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
RUCOLASE® CAE	Enzyme preparation of highly selected neutral cellulase	Uncharged	Enzymatic compound for neutral bio-bleaching	Biocatalyst for permanent antipilling finishing on cellulosic fibres. A certain degree of abrasion effects also provided.	<ul style="list-style-type: none"> <li>Removes pills, fibrils and loose cotton microstructures through biocatalytic degradation of the cellulose</li> <li>Solves quality defects such as fluffiness and pilling</li> </ul>	Not intended	Not intended	No	Yes
RUCOLASE® CACL	Enzyme preparation of neutral cellulase and amylase	Uncharged	One-step desizing and stone-washing effect	All-in-one, liquid enzyme for desizing and stone-washing effects at low temperature	<ul style="list-style-type: none"> <li>Liquid enzymatic compound for all-in-one desizing and stone-washing effects</li> <li>High energy, water and time saving potential due to one-step process and low temperature application</li> <li>Achieves excellent naturally structured stone-washing effects</li> </ul>	Not intended	Not intended	Possible (Denisafe), but not recommended	Yes
RUCOLASE® CHPL	Enzyme preparation of neutral cellulase	Uncharged	Stone-washing effects	Concentrated, high performing, liquid enzyme for stone-washing effects at low temperature with high non-petro chemical content	<ul style="list-style-type: none"> <li>Liquid enzymatic compound for stone-washing effects at low temperatures</li> <li>Achieves excellent naturally structured effects</li> <li>On selected denim fabrics it allows to achieve stone-washing effect without using pumice stones</li> <li>Does not cause material damages</li> </ul>	Not intended	Not intended	Yes (Denisafe)	Yes
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	<ul style="list-style-type: none"> <li>Special product for the enzymatic desizing of denim</li> <li>Optimum efficiency at pH 7 - 8</li> <li>For operating ranges between pH 6 - 9</li> <li>Standardised, very high enzyme activity</li> </ul>	Yes	Not intended	Not intended	Yes
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	<ul style="list-style-type: none"> <li>Unique stone-washing effects without pumice stones</li> <li>Innovative bio-based abrasion, enzyme supported</li> <li>Water saving due to working without additional water level</li> </ul>	Not intended	Not intended	Not intended	Yes
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	<ul style="list-style-type: none"> <li>Reliable removal of residual peroxide after peroxide bleach resp. HypNo bleach with peroxide addition of sulphur black dyed garments</li> <li>Easy to dose</li> <li>Foam-free</li> <li>Optimum efficiency from 20 °C to 50 °C</li> <li>Optimum application range between pH 4 - pH 10</li> </ul>	Not intended	Not intended	Not intended	Yes
RUCOLASE® STG NEW	Enzyme preparation of neutral cellulase	Uncharged	Stone-washing effects	Concentrated, granulated enzyme preparation for stonewashing effects at low temperature	<ul style="list-style-type: none"> <li>Granulated enzymatic preparation for low temperature denim stone-washing</li> <li>Contains buffer system for the accurate control of pH.</li> </ul>	Not intended	Not intended	Not intended	Yes
RUCOLASE® X-ZSS	Acid cellulase for bio-polishing	Uncharged	Bio-polishing	Superstrong biocatalyst based on acid cellulase for bio-polishing in order to achieve highly durable antipill finish of cellulose with high non-petro chemical content	<ul style="list-style-type: none"> <li>Biocatalyst for the removal of pills and for the permanent antipill finishing of cellulosic fibres</li> <li>For the gentle production of wash-out effects</li> <li>Successful only at optimum temperature, pH and time control</li> <li>Only effective in combination with surface mechanics</li> <li>Removes pills, fibrils and loose fibres through biocatalytic degradation of the cellulose</li> <li>Solution to quality defects, such as fluffiness and pilling</li> <li>Genuine finishing process for first-class surface look and hand feel improvement</li> <li>Wash-resistant effects</li> <li>Enzyme stop by the addition of alkalis or oxidising agents or by temperature increase</li> </ul>	No	Not intended	Not intended	Yes

## ...Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning

Product	Chemical Basis	Ionic 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
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	<ul style="list-style-type: none"> <li>Effective cleaning after bleaching and lasering process steps</li> <li>It allows to perform at low temperature, starting from 40°C</li> <li>Highlights white areas creating a better blue/white contrast</li> </ul>	Not intended	Not intended	Not intended	Yes
RUCORIT® X-HYP	Inorganic salt	Uncharged	Bleaching	Basis compound for HypNo bleaching as ecologically far superior alternative both to potassium permanganate and sodium hypochlorite with high non-petro chemical content	<ul style="list-style-type: none"> <li>Basis component for HypNO bleaching compound as PP spray substitute and hypochlorite alternative</li> <li>No unpleasant, acid smell</li> <li>Ecologically superior alternative both to potassium permanganate and sodium hypochlorite together with additive components</li> <li>Provides consistency of bleaching effects at high numbers of garments</li> <li>No danger of fabric damage when properly applied</li> </ul>	Not intended	Yes	Yes	Yes
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	<ul style="list-style-type: none"> <li>Additive component to HypNO basic component as PP spray substitute</li> <li>Free of heavy metals</li> <li>No unpleasant, acid smell</li> <li>Good visibility at manual spray</li> <li>Easily discharged after application at manual spray by subsequent drying and after-treatment</li> </ul>	Not intended	Yes	Yes	Yes
RUCORIT® X-NOCL	Organic and inorganic compounds	Uncharged	Bleaching	Additive component to HypNo basis component as halogen-free alternative to hypochlorite bleaching with high non-petro chemical content	<ul style="list-style-type: none"> <li>Additive component to HypNO basic component as hypochlorite alternative</li> <li>Halogen-free</li> <li>No unpleasant, acid smell</li> </ul>	Not intended	Yes	Yes	Yes
RUCOGEN® X-DAB	Preparation of fatty alcohol ethoxylates and polymers	Non-ionic	Washing with anti-backstaining	Excellent washing, dispersing and soil suspending agent with high level anti-backstaining properties	<ul style="list-style-type: none"> <li>Speciality product for reducing backstaining of indigo-dyed denim</li> <li>Applicable for all fibre types in all treatment steps of jeans washing</li> <li>Excellent dispersing and soil suspending properties especially for indigo bleeding</li> <li>Excellent washing power</li> <li>Very good suitability for cleaning denim material stained by indigo redeposition</li> <li>Suitable for drum washing machines with high liquor turbulence</li> <li>No unpleasant odour</li> <li>Not an enzyme poison</li> </ul>	No	Not intended	Not intended	Yes
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	<ul style="list-style-type: none"> <li>Excellent dispersing and soil suspending properties</li> <li>Excellent washing power</li> <li>Very good suitability for cleaning denim material stained by indigo redeposition</li> <li>Most effective avoidance of backstaining by indigo</li> <li>Versatile and suitable for many steps in denim garment processing</li> <li>Suitable for drum washing machines with high liquor turbulence</li> <li>Resistant to hard water salts</li> <li>Resistant to acid, alkaline and electrolyte-containing liquors</li> <li>No unpleasant odour</li> <li>Not an enzyme poison</li> <li>Stable and easy-to-dose formulation</li> <li>Comfortable handling due to low viscosity</li> </ul>	No	Not intended	Not intended	Yes
RUCO®-TEX DSP NEW	Mixture of special polymers	Non-ionic	Strong dispersing agent with antibackstaining properties	Dilutable concentrated dispersing agent for all fibre types	<ul style="list-style-type: none"> <li>Excellent dispersing properties</li> <li>No enzyme poison effects</li> <li>Reduces the backstaining on denim garments</li> </ul>	No	Not intended	Not intended	Yes
RUCO®-TEX OBD PLUS	Inorganic salt and special components	Anionic/non-ionic	Cleaning and bleaching	Universal cleaning and bleaching agent for producing good color shades, especially for washing indigo-dyed denims	<ul style="list-style-type: none"> <li>Yellow nuanced white powder that helps to clean the white weft of the denim fabric and at the same time enhances the bright blue character of the indigo dye</li> </ul>	Not intended	Not intended	Not intended	Yes

## Specialities

Product	Chemical Basis	Ionic 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
RUCO®-SPECIAL LPC	Organic compound	Uncharged	Catalysing of laser-priming/-boosting	Laser primer catalyst with top enhancement of laser primer with high non-petro chemical content	<ul style="list-style-type: none"> <li>• Clear catalysis function for the laser prime effect with RUCO®-SPECIAL LPR</li> </ul>	Yes, with specific precaution	Yes	Yes	Yes
RUCO®-SPECIAL LPR	Inorganic and organic compounds	Uncharged	Laserpriming/boosting	Unique laser primer for garments and fabrics with high laser-boosting and energy saving potential without remarkable fibre damage with high non-petro chemical content	<ul style="list-style-type: none"> <li>• Excellent laser priming effect with high energy saving potential</li> <li>• Strongly enhances laser effect both on indigo and sulphur dyed materials</li> <li>• Suitable both for application on garments and fabrics</li> <li>• Minimised fibre damage even at long-term storage of primed fabrics</li> </ul>	Yes, with specific precaution	Yes	Yes	Yes
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	<ul style="list-style-type: none"> <li>• Achieves stronger white contrast compared to without lasersmoother, but enhancement of the laser effect in a natural way</li> <li>• This effect makes it especially suitable for medium to dark shades on which soft, natural contrasts are required</li> <li>• Effects mimick manual scraping</li> <li>• Facilitates laser dust removal which results in more blueish look</li> <li>• Represents an alternative to PP spray</li> <li>• Saves laser energy as it increases effect compared to untreated at same settings</li> <li>• Increases productivity by time saving</li> <li>• Suitable for the use in classical garment drum washing machines</li> <li>• Suitable for the use in closed drum washing machines with spray/fog/nebulization system</li> <li>• Suitable for indigo and/or sulphur dyed denim</li> <li>• Suitable both for application on garments and fabrics</li> </ul>	Yes, with specific precaution	Yes	Yes	Yes
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	<ul style="list-style-type: none"> <li>• Compatible with many textile auxiliaries</li> <li>• For foam coating/application of the laser priming system consisting of RUCO®-SPECIAL LPR and RUCO®-SPECIAL LPC</li> </ul>	Not intended	Not intended	Not intended	Not intended
HYDROCOL® X-KNI	Polymer (Preparation of polyamide)	Cationic	Indigo fixing / fastness improving / pale-dark effects	Powerful indigo fixing agent without necessity to cure and agent for achieving highly detectable pale-dark effects on denim garments	<ul style="list-style-type: none"> <li>• Fixing agent for indigo dyeings</li> <li>• Can be used in garment finishing to obtain pale-dark effects</li> <li>• Very good effects are obtained by spraying 200 - 500 g/l HYDROCOL® X-KNI (spray 30 - 50 %, dry) on untreated denim fabric</li> <li>• Especially increases the wash fastness of denim</li> </ul>	Yes	Yes	Yes	Yes
HYDROCOL® X-WRF NEW	Polyurethane	Cationic	Fastness improving	Special fastness improving agent for distinct enhancement especially of the wet rubbing/crocking fastness	<ul style="list-style-type: none"> <li>• Improves the wet and dry rub fastness of dyeings and prints</li> <li>• Provides a soft hand feel</li> </ul>	Yes	Not intended	Yes	Yes
RUCOFIN® DARK	Polysiloxane compound	Cationic	Colour intensification/Blocking agent at bleaching	Efficient colour intensification product without influencing the hand feel effect distinctly into the direction of a soft touch	<ul style="list-style-type: none"> <li>• Intensifies colour depth of the whole garment when applied by bath</li> <li>• Locally applied on garments by brush before bleaching it allows reserving effects</li> <li>• Does not influence the garments hand feel in the direction of a distinctly soft touch</li> </ul>	Yes	Not intended	Not intended	Yes

## ...Specialities

Product	Chemical Basis	Ionic 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
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	<ul style="list-style-type: none"> <li>Speciality product for protecting indigo-dyed denim against yellowing and for preventing storage yellowing on polyamide</li> <li>Improvement of the ozone and gas fading fastness properties of indigo-dyed denim</li> <li>pH value for application for denim 4 - 5</li> <li>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</li> </ul>	Yes	Not intended	Not intended	Yes
RUCO®-MOR EPT 19071	Quaternary polyammonium compound	Cationic	Mordant agent	Mordant for achieving a wash-down effect with dischargeable dyes on cotton articles	<ul style="list-style-type: none"> <li>Extremely high affinity for dischargeable dyes</li> <li>Clear yellow-brown liquid</li> <li>High resistance to alkalis, acids and salts in hard water</li> </ul>	Yes	Not intended	Not intended	Yes
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	<ul style="list-style-type: none"> <li>Hand feel modifier and filling agent, especially as additive to resin finishing liquors</li> <li>Improves the fastness to dry rubbing of dyeings</li> <li>Suitable for temporary anti-curling finishes</li> <li>Compatible with most hand feel modifiers and softening agents</li> <li>Forms a very hard, non-elastic, transparent film</li> <li>Not wash-resistant</li> <li>Improves distinctly the scrapeability at manual scraping</li> </ul>	Yes	Yes	Yes	Not intended
VEROLAN® NAD	Preparation of alkyl phosphonate, organic and inorganic salts	Anionic	Corrosion protection	Effective corrosion inhibitor for metal parts with high dispersing capacity	<ul style="list-style-type: none"> <li>Organic complexing agent for the sequestration of hardness salts and process-disturbing metal ions</li> <li>Very high calcium and magnesium binding capacity</li> <li>Very high iron binding capacity</li> <li>Good dispersing capacity</li> <li>Easily rinsed out</li> <li>Low-foaming</li> <li>Prevents the corrosion of the metal parts of garments</li> <li>Stock liquors should not be prepared in nor be added through copper, brass or galvanized receptacles or pipes</li> </ul>	Not intended	Not intended	Not intended	Yes
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	<ul style="list-style-type: none"> <li>Special product for creation of a uniform liquor film on metal lick rollers/kiss rollers</li> <li>Suitable for the combination with RUCO®-SPECIAL LPR/RUCO®-SPECIAL LPC when applied on fabrics by lick roll/kiss roll application</li> <li>Crease prevention agent for bleaching and dyeing CO, CV, and PES as well as their blends</li> </ul>	Not intended	Not intended	Not intended	Yes

## Hand feel creation, softening, binding, coating effects

Product	Chemical Basis	Ionic 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
PERRUSTOL® DWC	Fatty acid condensation product	Cationic	Fatty acid condensation product conditioning in tumble-dryer	Innovative fatty acid condensation product conditioning in bag with high water saving potential	<ul style="list-style-type: none"> <li>Sustainable, innovative garment conditioning in tumble-dryer</li> <li>Slightly fatty hand feel</li> <li>No classical wet softening process necessary</li> <li>Dry application in tumble-dryer</li> </ul>	No	No	No	No
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	<ul style="list-style-type: none"> <li>Special soft hand feel agent for the treatment of indigo-dyed denim and jeans articles made from CO and CO/elastane blends</li> <li>For the universal soft hand feel finishing of woven or knitted fabrics as well as garments of all fibre types</li> <li>Supports the prevention of ozone-induced gas fading of indigo during storage (ozone gas in environment)</li> </ul>	Yes	Not intended	Yes	Yes
PERRUSTOL® IMA BASE	Fatty acid condensation product.	Cationic	Fabric softening	Finishing agent in flakes conferring a soft handle to textiles of any fibre type	<ul style="list-style-type: none"> <li>Cationic softner in flake-s voluminous handle on any fibre type</li> </ul>	Yes	Not intended	Yes	Yes
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	<ul style="list-style-type: none"> <li>Hydrophilic, self-emulsifying, liquid softener concentrate for cellulosic fibres or their blends with synthetic fibres</li> <li>Resistant to yellowing at drying temperatures up to 170°C, preliminary trials are recommended</li> <li>Supports the prevention of ozone-induced gas fading of indigo during storage (ozone gas in environment)</li> </ul>	Yes	Not intended	Yes	Yes
PERRUSTOL® X-VNO NEW	Fatty acid condensation product	Non-ionic	Fatty acid condensation product softening	Fatty acid condensation product softening agent with hydrophobic character and perfect combinability with repellency performance finishes ensuring a smooth touch	<ul style="list-style-type: none"> <li>Excellent soft hand feel on cellulose-containing substrates</li> <li>Applicable in resin finishing liquors; preliminary trials are recommended</li> <li>Compatible with many optical brighteners; preliminary trials are recommended</li> <li>Highly resistant to yellowing, even at high drying temperatures</li> </ul>	Yes	Not intended	Yes	Yes
RUCOFIN® ELS-N	Polysiloxane compound	Non-ionic	Fabric softening with protective effects on elastomeric fibers	Softening and smoothing agent for all fibre types containing an elastomeric polymer for vey soft handfeel and elastic boost.	<ul style="list-style-type: none"> <li>Resistant to electrolites, improves sewability, increase elasticity and elastic recovery, compatible with resin finishing agents</li> </ul>	Yes	Yes	Yes	Yes
RUCOFIN® TSH NEW - Tr	Polysiloxane compound	Cationic	Fabric softening	Silicone softnenig agent conferring a very soft supple full handle hydrophilic and resistant to yellowing	<ul style="list-style-type: none"> <li>Hydrophilic character</li> <li>High resistance to yellowing</li> <li>Confers antistatic properties</li> <li>Increase the elastic recovery of knitwear</li> <li>High pH stability (1-12)</li> <li>Good electrolyte compatibility</li> <li>Suitable for resin finishing.</li> </ul>	Yes	Yes	Yes	Yes

## ...Hand feel creation, softening, binding, coating effects

Product	Chemical Basis	Ionic 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
RUCOFIN® X-HST	Polysiloxane compound, microemulsion	Non-ionic	Silicone softening	Silicone softening agent (microemulsion) conferring a unique soft and surface smooth hand feel, hydrophilic and resistant to yellowing	<ul style="list-style-type: none"> <li>• Confers a special full, soft hand feel and surface smoothness</li> <li>• Hydrophilic character</li> <li>• High resistance to yellowing</li> <li>• Excellent stability to processes and shear forces</li> <li>• Extremely high pH stability (pH 1 - 12)</li> <li>• Compatible with common optical brighteners</li> <li>• Good electrolyte compatibility, suitable for resin finishing liquors</li> </ul>	Yes	Yes	Yes	Yes
RUCOFIN® X-HSX	Preparation of a fatty acid condensation 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	<ul style="list-style-type: none"> <li>• Softening and lubricating agent</li> <li>• Does not impair the fabric's hydrophilic properties, even after extreme drying processes</li> <li>• Confers a smooth, very soft fluffy hand feel and, with higher application quantities, a superfattening effect</li> <li>• Improves the sewability and prevents loop and sewing damage</li> <li>• Low-foaming, suitable for jet application</li> <li>• Resistant to yellowing up to drying temperatures of 170° C</li> <li>• Applicable in resin finishing liquors, preliminary trials are recommended</li> </ul>	Yes	Not intended	Yes	Yes
RUCOFIN® X-GST	Polysiloxane compound, microemulsion	Cationic	Silicone softening	Durable, hydrophilic silicone softening and smoothing agent for all fibre types with silky and voluminous handfeel effects. Ecologically optimized	<ul style="list-style-type: none"> <li>• Confers a silky, soft, voluminous and smooth handfeel</li> <li>• Hydrophilic properties of the treated textiles are maintained</li> <li>• High resistance to yellowing</li> <li>• Confers effects resistant to mild washing</li> <li>• Increases elasticity and elastic recovery of knitwear</li> <li>• Improves anticrease properties, tear strength and abrasion resistance in resin finishing</li> <li>• Improves sewability</li> <li>• Applicable in wide pH range (pH 1 - 12)</li> <li>• High shear stability</li> </ul>	Yes	Yes	Yes	Yes
RUCOFIN® X-GWA NEW	Amidofunctional polysiloxane compound, microemulsion	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	<ul style="list-style-type: none"> <li>• Highly process-secure, hydrophilic, jet-stable silicone softener for textiles of all fibre types, especially for synthetics or blends with cellulosic fibres</li> <li>• Confers natural hand feel effects with inner softness</li> <li>• Hydrophilic character</li> <li>• High resistance to yellowing</li> <li>• High shear stability and process safety (jet-stable)</li> <li>• Applicable in a wide pH range (pH 1 - 9)</li> <li>• Compatible with many optical brighteners</li> <li>• Compatible with electrolytes, suitable for resin finishing</li> </ul>	Yes	Not intended	Yes	Yes
RUCOFIN® X-GWE	Polysiloxane compound, macroemulsion	Non-ionic, weakly cationic	Silicone softening	Silicone softening agent (macro emulsion) with perfect colour intensification and colour maintaining properties, hydrophobic and highly durable to washing	<ul style="list-style-type: none"> <li>• Wash-resistant, highly concentrated silicone softener, confers an excellent soft hand feel, surface smoothness and intensifies colours</li> <li>• Confers a very soft, velvety hand feel</li> <li>• Confers surface smoothness and lustre</li> <li>• Hydrophobic, wash-resistant finishing effects</li> <li>• Imparts colour-intensifying properties (jet black effect)</li> </ul>	Yes	Not intended	Yes	Yes
RUCOFIN® X-GWS	Polysiloxane compound, microemulsion	Non-ionic, weakly cationic	Silicone softening	Silicone softening agent (microemulsion) for megasoft hand feel effects, hydrophobic and durable to washing	<ul style="list-style-type: none"> <li>• Universal, durable, concentrated silicone softening agent</li> <li>• Confers excellent hand feel effects and resilience to all fibre types.</li> <li>• Distinctly increases resilience, dimensional stability and elastic recovery</li> <li>• Improves the crease recovery and self-smoothing properties</li> <li>• Intensifies the colour impression</li> <li>• Low tendency to yellowing</li> <li>• Excellent durability to washing</li> <li>• Electrolyte-resistant, compatible with resin finishing agents</li> </ul>	Yes	Not intended	Yes	No
RUCOFIN® X-SIQ NEW	Quaternary polysiloxane compound, microemulsion	Cationic	Silicone softening	Silicone softening agent (microemulsion), very high process safety, pH stability, providing a natural hand feel with high inner softness	<ul style="list-style-type: none"> <li>• Hydrophilic silicone softening and smoothing agent for textiles of all fibre types</li> <li>• Confers a very soft, voluminous and smooth hand feel</li> <li>• Excellent maintenance of the absorptive properties of hydrophilic textiles</li> <li>• High resistance to yellowing</li> <li>• Improves anticrease properties, tear strength and abrasion resistance in resin finishing</li> <li>• Applicable in wide pH range (pH 1 - 12)</li> <li>• High running and shear stability</li> <li>• Compatible with many common optical brighteners</li> <li>• Good electrolyte compatibility, suitable for resin finishing liquors</li> </ul>	Yes	Not intended	Yes	Yes

## ...Hand feel creation, softening, binding, coating effects

Product	Chemical Basis	Ionic 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
RUCO®-PUR X-SLY	Polyurethane	Slightly cationic	Hand feel creation	Hand feel creation agent, hydrophilizing agent and special softening agent, supporting the natural absorbency of cellulosic and man made fibre materials whilst creating a PU-specific soft hand feel with a high inner softness	<ul style="list-style-type: none"> <li>Hydrophilising agent and special softener for garments and fabrics of all fibre types</li> <li>Creates a PU-specific soft hand feel with a high inner softness</li> <li>Hydrophilic properties, resistant to mild washing, are imparted to articles made of synthetics</li> <li>Confers good antistatic properties to synthetics</li> <li>For dyed or white goods</li> <li>Does not require curing (no oven treatment)</li> <li>Easily overdyed (easy-repair function)</li> <li>Increases the elasticity and elastic recovery of the fabric</li> <li>Versatile combinations with other finishing products possible; pretrials for testing the liquor compatibility are recommended</li> <li>Wash-permanent soft hand feel effects can be created on the substrate in connection with reactant crosslinking agents and respective catalysts</li> </ul>	Yes	Yes	Yes	Yes
FERAN® X-SSG 200	Silicic acid	Cationic	Hand feel creation / Anti-slip finish	Hand feel creation agent, antislip finish product for special handfeels like e.g. peach-skin and other velvety touches in combination with silicone softening agents	<ul style="list-style-type: none"> <li>Special hand feel creation</li> <li>Creates peachskin-like hand feel on suitable articles in combination with silicone softening agents</li> <li>Excellent anti-puckering effect agent for elastane containing denim</li> <li>Increases the adhesion between EL and core spun fibres from CEL and synthetics</li> <li>Anti-slip agent for finishes imparting a soft hand feel</li> <li>Excellent anti-slip effect</li> <li>Application in resin finishing liquors possible</li> <li>Slight delustring of fabric appearance</li> </ul>	Yes	Not intended	Not intended	Yes
RUCO®-PLAST HLS	Polyvinyl-acetate	Non-ionic	Hand feel creation / Stiffening effects	Hand feel creation agent and filling/stiffening product for special hand feels like e.g. paper-touch and other rigid finishes, based on polyvinylacetate	<ul style="list-style-type: none"> <li>Wash-resistant hand feel-modifying, filling and stiffening agent for all fibre types</li> <li>Special hand feel creation; e.g. paper-like touch</li> <li>Suitable for wash-resistant anti-curling finishes</li> <li>Protects textiles from wearing out</li> <li>Applicable in resin finishing liquors</li> <li>Resistant to washing</li> <li>Forms a very hard, in-elastic, turbid and tack-free film</li> <li>Formaldehyde-free</li> <li>Good resistance to yellowing</li> </ul>	Yes	Yes	Yes	No
RUCO®-COAT AC 3110	Preparation of polyacrylates	Non-ionic, slightly anionic	Coating effects - Acrylate	Coating effect component based on polyacrylate polymer	<ul style="list-style-type: none"> <li>Aqueous acrylic ester dispersion for paste or foam coatings, self-crosslinking</li> <li>For a soft, resilient/elastic film</li> <li>Suitable for base or multicoats</li> <li>Coatings are wash-resistant</li> <li>Suitable as pigment binder with high pigment binding capacity and durability</li> <li>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</li> </ul>	No	Yes	Yes	Not intended
AC 245	Acrylic copolymer	Anionic	Transparent coating (with press)	Used for soft and flexible coating effects with self crosslinking properties in paste and foam applications.	<ul style="list-style-type: none"> <li>Transparent and very soft film</li> <li>Resistant to washing and dry cleaning</li> <li>Free of APEO</li> </ul>	Yes	Yes	Not intended	



## ...Hand feel creation, softening, binding, coating effects

Product	Chemical Basis	Ionic 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
RUCO®-COAT TH 5020	Pre-neutralised polyacrylate	Anionic	Thickener for coating pastes	Easy-to-handle thickener for coating pastes	<ul style="list-style-type: none"> <li>• Synthetic thickener for aqueous polymeric dispersions</li> <li>• Excellent for post-thickening pastes</li> <li>• Even small quantities lead to a considerable increase in the viscosity</li> <li>• Swells rapidly in water, has a strongly thickening effect</li> </ul>	No	Yes	Not intended	Not intended
RUCO®-COAT X-ELA	Blend of polymer dispersion 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	<ul style="list-style-type: none"> <li>• Ready-to-use compound</li> <li>• Contains filling agent</li> <li>• Can be coloured by adding pigment dyestuff</li> <li>• Resistant to 40°C mild washing conditions</li> <li>• Suitable to be sprayed on garments by spray gun</li> <li>• Suitable to be applied by paint brush</li> <li>• Can also be used by classical coating with paste after it has been thickened by a suitable thickener</li> </ul>	No	Yes	No	No
RUCO®-COAT X-LTH	Blend of polymer dispersion 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	<ul style="list-style-type: none"> <li>• Ready-to-use compound</li> <li>• Contains filling agent</li> <li>• Can be coloured by adding pigment dyestuff</li> <li>• Resistant to 40°C mild washing conditions</li> <li>• Suitable to be sprayed on garments by spray gun</li> <li>• Suitable to be applied by paint brush</li> <li>• Can also be used by classical coating with paste after it has been thickened by a suitable thickener, e.g. RUCO®-COAT TH 5020</li> </ul>	No	Yes	No	No
RUCO®-COAT X-PRL	Acrylate based polymer dispersion	Non-ionic, slightly anionic	Creation of reflective pearl coating effects on all kinds of garments	Reflecting pearl fashion coating effect compound	<ul style="list-style-type: none"> <li>• Ready-to-use compound</li> <li>• Can be coloured by adding pigment dyestuff</li> <li>• Resistant to 40°C mild washing conditions</li> <li>• Suitable to be sprayed on garments by spray gun</li> <li>• Suitable to be applied by paint brush</li> <li>• Can also be used by classical coating with paste after it has been thickened by a suitable thickener, e.g. RUCO®-COAT TH 5020</li> </ul>	No	Yes	No	No
RUCO®-COAT X-WAX	Blend of polymer dispersion, wax and polysiloxane compound	Non-ionic, slightly cationic	Creation of waxy coating effects on all kinds of garments	Strong wax-like fashion coating effect compound	<ul style="list-style-type: none"> <li>• Ready-to-use compound</li> <li>• Achieves pronounced waxy touch effects</li> <li>• Can be coloured by adding pigment dyestuff</li> <li>• Suitable to be sprayed on garments by spray gun</li> <li>• Suitable to be applied by paint brush</li> </ul>	No	Yes	No	No

## 3D pleats, easy care

Product	Chemical Basis	Ionic 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
RUCON® X-FAC	Modified N-methylol dihydroxyethylene urea with incorporated catalyst system	Uncharged	Permanent pleat fixation / Easy care finish / Creation of 3D effects	Resin for 3D pleat formation, low-formaldehyde	<ul style="list-style-type: none"> <li>• Crosslinking agent for the low-formaldehyde resin finishing of woven and knitted fabrics made from cellulosic fibres and their blends with synthetic fibres</li> <li>• Suitable for made-up garments</li> <li>• Does not require an additional catalyst system</li> <li>• Results in very low formaldehyde values if cured adequately</li> <li>• Good easy-care properties and high dimensional stability of the finished goods</li> <li>• Produces wash-and-wear effects that are stable at the boil</li> <li>• No or only slight changes of shade</li> <li>• Produces chlorine-resistant finishes</li> <li>• Causes lower losses of tear fastness than conventional reactant crosslinking agents</li> <li>• Highly compatible with most auxiliaries used in resin finishing, such as additives, softening and filling agents, water, oil and soil repellent agents and brighteners</li> <li>• Perfectly suitable for creating 3D effects</li> <li>• Strong blocking agent for indigo when oxidants are applied subsequently to 3D tagging</li> <li>• 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)</li> <li>• For 3D effect creation on lighter shades: RUCON® FNF should be preferred</li> </ul>	Yes	Yes	Yes	Yes
RUCON® X-FNF	Modified dihydroxyethylene urea, formaldehyde-free	Uncharged	Permanent pleat fixation / Easy care finish / Creation of 3D effects	Resin for 3D pleat formation, formaldehyde-free	<ul style="list-style-type: none"> <li>• Crosslinking agent for a formaldehyde-free resin finishing of textiles made of cellulosic fibres or their blends with synthetic fibres.</li> <li>• High liquor stability even with strong catalysts</li> <li>• Results in formaldehyde-free finishing effects if catalysed and cured correctly</li> <li>• Complies with the requirements of zero formaldehyde according to Standard 100 by OEKO-TEX®, class I</li> <li>• Perfectly suitable for creating 3D effects</li> <li>• Blocking agent for indigo when oxidants are applied subsequently after 3D tagging (particularly suitable for light to medium washes)</li> <li>• Avoidance of undesired strong contrasts in the 3D pleat area when bleaching after 3D tagging</li> <li>• RUCON® X-FAC would give too strong contrasts in the 3D pleat area</li> </ul>	Yes	Yes	Yes	Yes

## Effect functionalities

Product	Chemical Basis	Ionic 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
RUCO-DRY® X-ECO PLUS	Hyperbranched and linear polymers	Cationic	Repellency /Stain protection	Very effective fluorine-free water-repellent agent with high resistance to washing in combination with boosters and good level of biobased carbon content	<ul style="list-style-type: none"> <li>• Very effective water-repellent agent for finishing fabrics and garments of all fibre types</li> <li>• High resistance to washing in combination with boosters</li> <li>• High level of biobased carbon content</li> </ul>	Yes	Yes	Yes	Yes
RUCO-DRY® X-ECO ADV	Hyperbranched and linear 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 excellent level of biobased carbon content	<ul style="list-style-type: none"> <li>• Highly effective water-repellent agent for finishing fabrics and garments of all fibre types</li> <li>• Imparts very good water-repellent properties</li> <li>• High resistance to washing in combination with boosters</li> <li>• Excellent level of biobased carbon content</li> </ul>	Yes	Yes	Yes	Yes
RUCO®-LINK X-RCX	Blocked polyisocyanate	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	<ul style="list-style-type: none"> <li>• Crosslinking component for RUCO-DRY® X-ECO PLUS and RUCO-DRY® X-ECO ADV for hydrophobic and soil-repellent fluorocarbon-free finishes</li> <li>• Low curing temperature (approx. 150 °C) necessary</li> <li>• Free of flammable solvents</li> <li>• No yellowing</li> </ul>	Yes	Yes	Yes	Yes
RUCO®-LUB EPE	Polyethylene	Non-ionic	Stretch ability recovery	Additive to improve sewability of any type of woven or knitted fabrics and particularly suitable for denim fabrics	<ul style="list-style-type: none"> <li>• Resistant to yellowing , improves the tear and tensile strenght of materials, resistant to mild washing and dry cleaning</li> </ul>	Yes	Yes	Yes	Yes
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	<ul style="list-style-type: none"> <li>• Additive for resin finishing for reducing the loss in tensile strength and abrasion resistance as well as for improving the crease recovery</li> <li>• Softener for improving the sewability</li> <li>• Reduces losses in tensile strength and abrasion resistance</li> <li>• Increases the dry and wet crease recovery</li> <li>• Improves the sewability and avoids loop damage</li> <li>• No yellowing even at extremely high temperatures</li> <li>• Confers a soft, supple hand feel</li> </ul>	Yes	Yes	Yes	Yes
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	<ul style="list-style-type: none"> <li>• Non-migrating bacteriocidal and slightly fungicidal properties for textile protection</li> <li>• Highly resistant to washing and dry cleaning</li> <li>• Has no effect on existing or imparted hydrophilic properties</li> <li>• Resistant to yellowing</li> <li>• Resistant to higher drying temperatures</li> </ul>	Yes	Not intended	Yes	Yes
PU 288	Polyurethane	Anionic	Aqueous, aliphatic polyurethane dispersion	Suitable for paste and foam coating, improves pilling and abrasion resistance of fabrics across a wide range of applications	<ul style="list-style-type: none"> <li>• Elastic film</li> <li>• High light fastness</li> <li>• Suitable for mechanical foam</li> <li>• Highly stable to hydrolysis</li> </ul>	Yes	No	No	No

## ...Effect functionalities

Product	Chemical Basis	Ionic 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
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	<ul style="list-style-type: none"> <li>• Self-crosslinking polyurethane</li> <li>• Provides excellent antisagging/antibagging properties</li> <li>• Reduces the tendency to pill and snag</li> <li>• Improves tear strength, tensile strength and abrasion resistance</li> <li>• Suitable for chintz finishes durable to washing</li> <li>• Increases resilience and elastic recovery</li> <li>• Improves the crease recovery when used in resin finishing</li> <li>• Improves the dry rub-fastness</li> <li>• Does not affect the hydrophilic properties of the finished fabric</li> <li>• Forms a soft, elastic, opaque and tack-free film</li> <li>• Develops elegant lustre in garment finishing</li> <li>• Very good anti-fraying effect for intentionally damaged areas in denim</li> </ul>	Yes	Yes	Yes	Yes
RUCO®-PUR X-FSA	Polyesterpolyurethane 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	<ul style="list-style-type: none"> <li>• Versatile wash-resistant finishing agent for garments and fabrics in order to provide shape-retaining antibagging/antisagging effects</li> <li>• Hand feel creating agent for fashion garments</li> <li>• Suitable for all fibre types and blends</li> </ul>	Yes	Yes	Yes	Not intended

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AC 245		14	Transparent coating	Hand feel creation, softening, binding, coating effects	Available from RUDOLF DURANER
AC 3110	RUCO®-COAT	14	Coating effects - Acrylate	Hand feel creation, softening, binding, coating effects	
AGP	RUCO-BAC®	20	Hygiene and freshness	Effect functionalities	
BO	RUCO®-PLAST	8	Binding/Additive for pleat fixation	Specialities	
CAE	RUCOLASE®	2	Neutral Biopolishing	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning	Available from RUDOLF DURANER
CACL	RUCOLASE®	2	One-step desizing and stone-washing effects	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning	
CBL	RUCORIT®	4	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/cleaning	
DSP NEW	RUCO®-TEX	4	Strong dispersing agent with antibackstaining properties	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning	Available from RUDOLF DURANER
DWS	RUCOLASE®	2	Stone-washing effects without water level	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning	
DWC	PERRUSTOL®	10	Fatty acid condensation product conditioning in tumble-dryer	Hand feel creation, softening, binding, coating effects	
ELS-N	RUCOFIN®	10	Silicone softening	Hand feel creation, softening, binding, coating effects	Available from RUDOLF DURANER
EPE	RUCO®-LUB	20	Additive to improve sewability	Effect functionalities	Available from RUDOLF DURANER
EPT 19071	RUCO®-MOR	8	Mordant agent	Specialities	Available from RUDOLF DURANER
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	
IMA BASE	PERRUSTOL®	10	Fatty acid condensation product	Hand feel creation, softening, binding, coating effects	Available from RUDOLF DURANER
JET	RUCOLIN®	8	Crease prevention	Specialities	
KAT	RUCOLASE	2	Peroxide inactivation	Specialities	
KMN 400	RUCO®-LUB	20	Mechanical/ technological improvement	Effect functionalities	
LPC	RUCO®-SPECIAL	6	Catalysing of laser-priming/-boosting	Specialities	
LPR	RUCO®-SPECIAL	6	Laser-priming/-boosting	Specialities	
LSM	RUCO®-SPECIAL	6	Creation of natural laser effects, laser-smoothing	Specialities	
NAD	VEROLAN®	8	Corrosion protection	Specialities	
OBD PLUS	RUCO®-TEX	4	Cleaning and bleaching	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning	Available from RUDOLF DURANER
PU 288		20	Improves pilling and abrasion resistance of fabrics	Effect functionalities	Available from RUDOLF DURANER
TH 5020	RUCO®-COAT	16	Thickener for coating pastes	Hand feel creation, softening, binding, coating effects	
TSH NEW-TR	RUCOFIN®	10	Silicone softening	Hand feel creation, softening, binding, coating effects	Available from RUDOLF DURANER
STG NEW	RUCOLASE®	2	Enzyme preparation of neutral cellulase	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning	Available from RUDOLF DURANER
UPCYCLE RNB	RUCOGEN®	4	Washing with anti-backstaining	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning	
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	Hand feel creation, softening, binding, coating effects	Available from RUDOLF DURANER
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®	12	Silicone softening	Hand feel creation, softening, binding, coating effects	
X-GWA NEW	RUCOFIN®	12	Silicone softening	Hand feel creation, softening, binding, coating effects	
X-GWE	RUCOFIN®	12	Silicone softening	Hand feel creation, softening, binding, coating effects	
X-GWS	RUCOFIN®	12	Silicone softening	Hand feel creation, softening, binding, coating effects	
X-HST	RUCOFIN®	12	Silicone softening	Hand feel creation, softening, binding, coating effects	

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X-HSX	RUCOFIN®	12	Silicone softening	Hand feel creation, softening, binding, coating effects
X-HYP	RUCORIT®	4	Bleaching	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning
X-IPS NEW	PERRUSTOL®	10	Fatty acid con densation product softening	Hand feel creation, softening, binding, coating effects
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 Available from RUDOLF DURANER
X-MMX CONC	PERRUSTOL®	10	Fatty acid condensation product softening	Hand feel creation, softening, binding, coating effects
X-NOCL	RUCORIT	4	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-PRL	RUCO®-COAT	16	Creation of reflective pearl coating effects on all kinds of garments	Hand feel creation, softening, binding, coating effects Available from RUDOLF DURANER
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-ZSS	RUCOLASE®	2	Bio-polishing	Desizing, stone-washing effects, bio-polishing, bleaching, washing/cleaning

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