



PRE-TREATMENT
AND DYEING

FINISHING

ENZYMES

WASTEWATER
TREATMENT



RESEARCH, DEVELOPMENT, INNOVATION

Color Center, S.A. is a research & innovation driven chemical company, strategically focused on textile chemistry market. Our mission is to provide high value-added solutions to the technological challenges posed by our clients in a dynamic and constantly changing environment.

We have a wide experience in the textile sector with highly qualified staff and modern laboratories for synthesis, chemical characterization, application and quality control. We are aware of the competitive advantage that means incorporating the external talent and “ideas” to our innovation process. For that reason we work under a collaborative and highly flexible model based on the “Open Innovation”. We work closely with Customers, Suppliers, Experts and Technological Centers to offer our customers the best service and remain at the forefront of the sector.

We work systematically in the development, acquisition and design of new materials and Nano-materials that allow us to offer more sustainable products with an improved toxicological profile, while maintaining the most demanding level of performance and quality required by the current market.

DISTRIBUTION, PRODUCTION AND WAREHOUSES

Our products are distributed worldwide in the best conditions and with the highest punctuality from our factories and warehouses located in the most strategic areas. Our warehouses are equipped with the latest logistic systems, which allow us to manage the goods efficiently and to deliver them within the best deadlines.

Furthermore, our experience in the field of import / export permits us to be present anywhere in the world. CENTER QUIMICA S.A.C. is the operational base of the Group Color Center in the area of South America.



COLOR CENTER, OUR COMPANY

Was founded in 1978. From the beginning, it has been consecrated to the design, production and marketing of dyestuffs and auxiliary products for the textile industry.

According to its wide experience and always looking ahead, the main objective of **Color-Center**, S.A. is to guarantee a complete and a tailor-made service to its customers. Thanks to this policy, our products are acquired by an increasing number of customers from all around the world. We offer specific solutions adapted to our customers requirements and we are proud to offer the highest quality services to a large number of customers.



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- FIXING

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- DISPERSING
- DEFOAMING

PRE-TREATMENT AND DYEING

Our expertise in textile chemistry allows us to offer customer-oriented product developments. Innovative product range for all textile processes: scouring, bleaching, dyeing... Every product has been carefully developed in terms of process efficiency, reproducibility, fastness, levelness, sustainability... Value-added products thanks to open innovation and proprietary know-how.



Color Center offers outstanding customer service for pretreating and dyeing all kind of goods (wovens, knits, fibers, yarns, nonwovens):

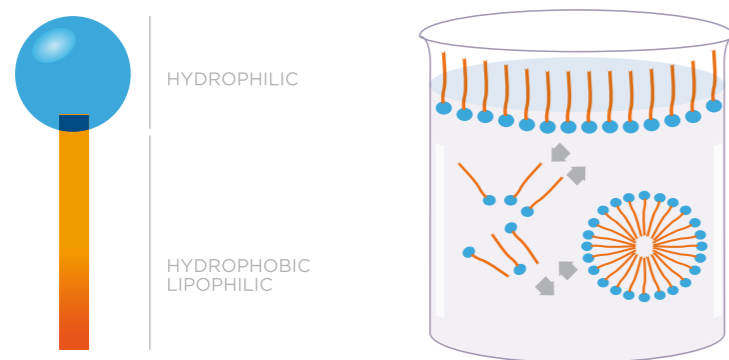
- Preparation of complete recipes using our range of textile auxiliaries and dyestuffs.
- Development of processes and products, matched to the individual customer requirements.
- Simulation of pretreatment and dyeing processes in the laboratory.
- Carrying out tests according to national, international as well as specific customer standards (spectroscopic analysis -FTIR-, fastnesses, microscopic analysis, microbiologic testing...).

DETERGENTS & WETTING AGENTS

EXPERTISE IN SURFACTANT TECHNOLOGY

We provide true expertise and advice to our clients. With cutting-edge laboratory facilities and production lines we are able to offer both conventional and unique surfactant products.

We see technical support as key to the growth of the business, and as a company we continually develop new surfactants to meet customer demands.

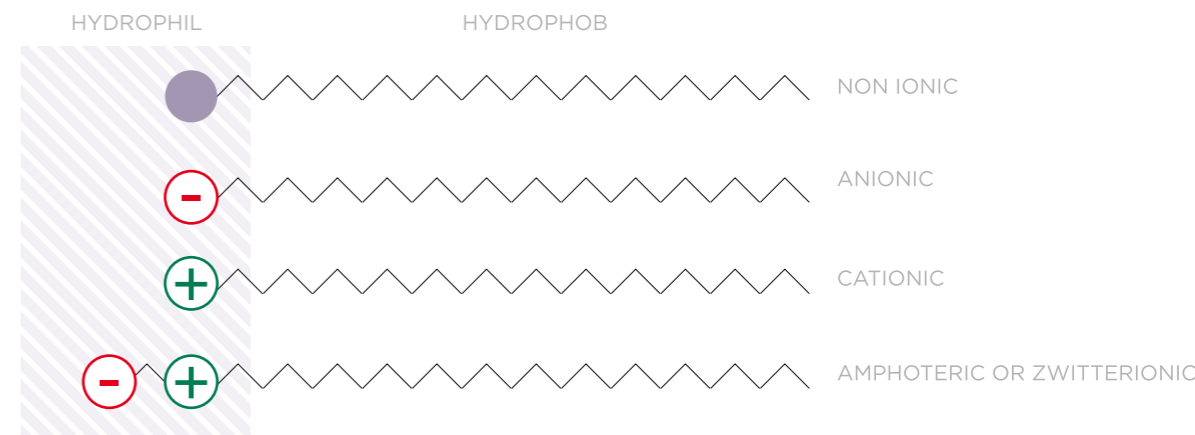


Surfactants contain both a hydrophobic and a hydrophilic section, and as a combination of these two differing characteristics within the molecule, many differing properties can be achieved. We have products that produce high or low foam.

Some products offer excellent detergency and are used in cleaning formulations. We have surfactants that offer good emulsification of oils and oligomers. We have some products that offer excellent wetting power and some that offer both wetting and dispersing properties.

SURFACTANTS STRUCTURE & PROPERTIES

In terms of ionicity there are 4 kinds of surfactants:



Products are available for each of the surfactant types, anionics, nonionics, cationics and amphoteric. In our synthesis & formulation laboratories we develop products tailored to meet the most demanding specifications.

WETTING AGENTS

| | | PREPARATION | MERCERIZATION | DYEING | BLEACHING | FINISHING | CONTINUOUS | DISCONTINUOUS | CELLULOSIC | WOOL | PES | PAN | PA | SOLID | IONIC | CONTAINS | CONTAINS | DEAERATING | FOAM |
|--------------------|--|-------------|---------------|--------|-----------|-----------|------------|---------------|------------|------|-----|-----|----|-----------|-----------|----------|----------|------------|------|
| | | | | | | | | | | | | | | CONTENT % | CHARACTER | SILICONE | SOLVENT | PROPERTIES | |
| COMPLEX F-908 | Nonionic wetting, deaerating, high concentration of general application. | X | - | X | X | X | X | X | X | X | X | X | X | 93 | N | - | X | X | 0 |
| COMPLEX FD | Nonionic wetting, deaerating of general application. | X | - | X | X | X | X | X | X | X | X | X | X | 51 | N | - | X | X | 0 |
| COTEMOLL MR | Fast anionic wetting for preparation and dyeing of cotton fiber. | X | - | - | X | - | - | X | X | - | - | - | - | 27 | A | - | - | - | 3 |
| COTEMOLL SAS | Fast anionic wetting for preparation and reactive dye and vat to the continuous application. | X | - | X | - | - | X | X | X | - | - | - | - | 30 | A | - | - | - | 1 |
| COTEMOLL HC NUEVO | Wetting - lubricant for dyeing cotton. | - | - | X | - | - | - | X | X | - | - | - | - | 45 | A/N | - | - | - | 0 |
| COTEMOLL MGK | Wetting agent for mercerising and causticising processes. | - | X | - | - | - | X | - | X | - | - | - | - | 34 | A | - | - | - | 0 |
| COTEMOLL WET FL | Fluorinated wetting agent for coating pastes. | - | - | - | - | X | X | X | X | X | - | X | - | 25 | A | - | - | - | 0 |
| COMPLEX 2000 ULTRA | Deaerating and defoaming, wetting. | X | - | X | X | - | - | X | X | X | - | X | - | 20 | A | X | - | X | 0 |
| COTEMOLL MD | Wetting agent for finishes. It does not affect the properties of fluorocarbon. | - | - | - | - | X | X | - | X | X | X | X | X | 3 | A | - | - | - | 0 |

A: Anionic · N: Non ionic · ANF: Amphoteric · 0: No foam · 1: Low foam · 2: Medium foam · 3: High foam

DETERGENTS

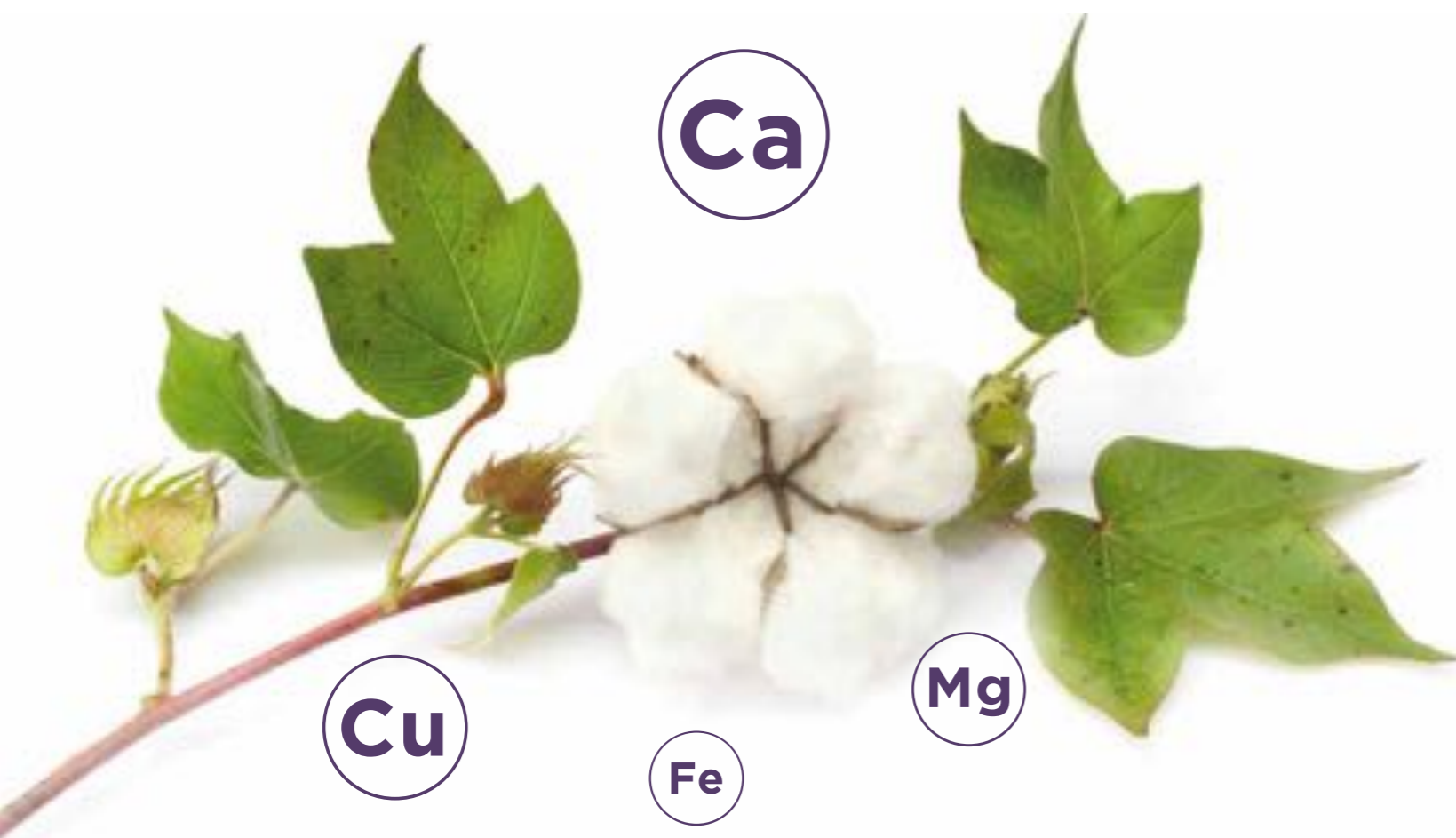


| | | APPLICATION | | | PROCESS | | FIBER TYPE | | | | | PRODUCT PROP. | | |
|------------------------|--|-------------|--------|-----------|------------|---------------|------------|------|-----|-----|----|-----------------|-----------------|------|
| | | PREPARATION | DYEING | BLEACHING | CONTINUOUS | DISCONTINUOUS | CELLULOSIC | WOOL | PES | PAN | PA | SOLID CONTENT % | IONIC CHARACTER | FOAM |
| COTEMOLL TOB | Detergent for pretreatment, desizing and washing of cotton, synthetic fibers and blends. | X | - | - | - | X | X | - | X | - | - | 30 | A/N | 2 |
| PRODUCTO DSC | Detergent - wetting - sequestering for scouring and desizing of cotton Padding process. | X | - | - | X | - | X | - | - | - | - | 36 | A/N | 2 |
| COTEMOLL PC ULTRA CONC | Detergent - wetting concentrate for scouring and bleaching of cotton and blends. | X | - | X | - | X | X | - | - | - | - | 85 | N | 1 |
| COTEMOLL DNS | Detergent and wetting agent for the pretreatment of cotton and its polyester blends. | X | - | X | - | X | - | - | - | - | - | 38 | N | 1 |
| COTEMOLL MFA | Special wetting-detergent agent with emulsifying properties for continuous pretreatment steps of cellulosic fibres and their blends with synthetics. | X | - | X | X | - | X | - | - | - | - | 80 | A/N | 1 |
| COTEMOLL BSL NUEVO | Multifunctional product (organic stabilizer, detergent, emulsifier and sequestrant). Good wetting and low foaming power. | - | - | X | - | X | X | - | - | - | - | 22 | A | 1 |
| COTEMOLL E2 | Detergent - bleach activator with hydrogen peroxide. | - | - | X | - | - | X | - | - | - | - | 30 | N | - |
| COTEMOLL SIT | Emulsifier detergent of paraffins and silicones. | X | - | - | X | X | X | - | - | - | X | 30 | ANF | 3 |
| COTEMOLL D-750 | General purpose detergent with biodegradable solvents. | X | - | - | - | X | X | - | - | - | X | 35 | A/N | 1 |
| PRODUCTO PCB 202-S | Solvent detergent for pretreatment of all kind of fiber. | X | - | - | X | X | X | - | X | - | - | 60 | N | 1 |
| COTEMOLL TS | Dispersing and accelerator of polyester dyeing diffusion. | X | - | - | - | - | X | X | X | - | X | 100 | A/N | 1 |
| AMPLEX HTA | Detergent - dispersant for simultaneous scouring and dyeing PES/CV. | - | X | - | - | X | - | - | X | - | - | 40 | A/N | 1 |
| COTEMOLL MWS | Detergent - dispersant wich facilitates the removal and prevents deposits of oligomers during the dyeing process. | - | X | - | - | X | - | - | X | - | - | 25 | A | 2 |
| COTEMOLL CWP | Detergent-dispersant antibackstaining in washing denim. | - | - | - | - | - | - | - | - | - | - | 30 | A/N | 2 |
| COTEMOLL PS LÍQUIDO | Detergent preparation. | - | - | - | - | X | - | X | - | - | - | 20 | A | 3 |
| COTEMOLL NI | Detergent - wetting nonionic generally applicable to all types of fiber. | X | - | X | X | X | X | X | - | X | - | 85 | N | 3 |
| COMPLEX EX | Detergent for pretreatment, desizing and dyeing of cotton, synthetic fibers and blends. | X | X | X | X | - | X | X | - | - | - | 74 | A | 3 |
| COTEMOLL RV | Detergent for soaping of prints polyamide. | - | X | - | - | - | X | - | - | - | - | 27 | N | 2 |
| COTEMOLL DC | Wetting, detergent and Special Degassing for coil. | X | X | X | - | X | X | - | - | - | - | 40 | A/N | 0 |
| COTEMOLL NFS | Wetting, detergent general application, low foam. | X | X | X | - | X | X | - | X | - | - | 30 | N | 0 |
| DETERGENTE Q | Detergent for cleaning of cylinders, boxes and stamping dies. | - | - | - | - | - | - | - | - | - | - | 30 | A | - |
| AMPLEX SDM | Product for cleaning dyeing machinery. | - | - | - | - | X | - | - | - | - | - | 25 | A | - |
| COTEMOLL 803-C | Detergent for washing ready-made garment. | X | X | - | - | - | X | X | X | - | - | 30 | N | 2 |
| COTEMOLL MH40 | Anionic detergent with wetting properties, emulsifier and re-moisturizes. | X | - | - | X | - | X | - | - | - | - | 25 | A | 3 |
| COTEMOLL N CONC. | Anti-precipitant for dyeing acrylic fibers. | - | X | - | - | - | - | - | - | X | - | 14 | N | 3 |

SEQUESTERING AGENTS & PEROXIDE STABILIZERS FOR OPTIMAL PROCESS PERFORMANCE

Since trace amounts of soluble iron, copper, manganese, calcium, and other metals occur naturally in many raw materials, the potential for scaling and undesirable metal-catalyzed reactions is widespread. These metal ions are normally found in processing water, and can also be introduced during processing.

Among the different types of metal ion control agents in use today, **Color Center** chelating agents produce the most stable complexes with metal ions and generally provide the most effective control of metal ion problems.



Color Center chelating & dispersing agents are the least costly option for metal ion control due to their effectiveness at remarkably low concentrations. Unique advantages of **Color Center** sequestering agents include:

- Enhanced sustainability
- Predictable performance
- High thermal stability
- Chemical stability
- pH stability



SEQUESTERING AGENTS

| | | SOLID CONTENT | ECOTOXICITY | APPLICATION PROCESS | | | | | | |
|-----------------------|---|---------------|-------------|---------------------|----------|------------------|----------|-----------|---------------|---------|
| | | | | DYEING | SCOURING | DEMINERALIZATION | DESIZING | BLEACHING | MERCERIZATION | SOAPING |
| AMPLEX BC POLVO | EDTA-based sequestering agent. High chelating power for iron. | 85 | 3 | - | X | - | - | X | - | - |
| AMPLEX SET | Phosphonate sequestering & dispersing agent for bleaching processes. High chelating power for iron. | 16 | 1 | - | X | - | X | X | - | X |
| AMPLEX D-230 | Phosphonate/acrylate sequestering & dispersing agent for dyeing cellulose. With ability to chelate iron. | 25 | 1 | X | - | - | X | X | - | X |
| AMPLEX CA-ECO | Sequestering & dispersing agent for general application, phosphorus-free, readily biodegradable. | 20 | 0 | X | - | - | - | - | - | X |
| AMPLEX MS | Phosphonate sequestering agent for dyeing. With ability to chelate iron. | 39 | 1 | X | X | - | X | X | - | X |
| AMPLEX D6/NA | Phosphonate sequestering & dispersing agent for the preparation and bleaching of goods. With ability to chelate iron. | 28 | 1 | - | X | - | - | X | - | X |
| AMPLEX XEL | Sequestering agent for the demineralization of cellulosic fibers. Excellent chelating power for iron. | 40 | 1 | - | X | X | - | - | - | - |
| AMPLEX BC-ECO | General application sequestering agent, phosphorus-free, readily biodegradable. High chelating power for iron. | 34 | 0 | X | X | - | X | X | - | X |
| AMPLEX RG A.C. | Phosphonate sequestering & dispersing agent for general application. No demetallizing effect. With ability to chelate iron. | 40 | 1 | X | X | - | X | X | X | X |
| AMPLEX 106 A.C. NUEVO | Sequestering & dispersing agent based on acrylic copolymer. | 40 | 1 | X | - | - | - | - | - | X |

0: Very low · 1: Low · 2: Medium 3: High

PEROXIDE STABILIZERS

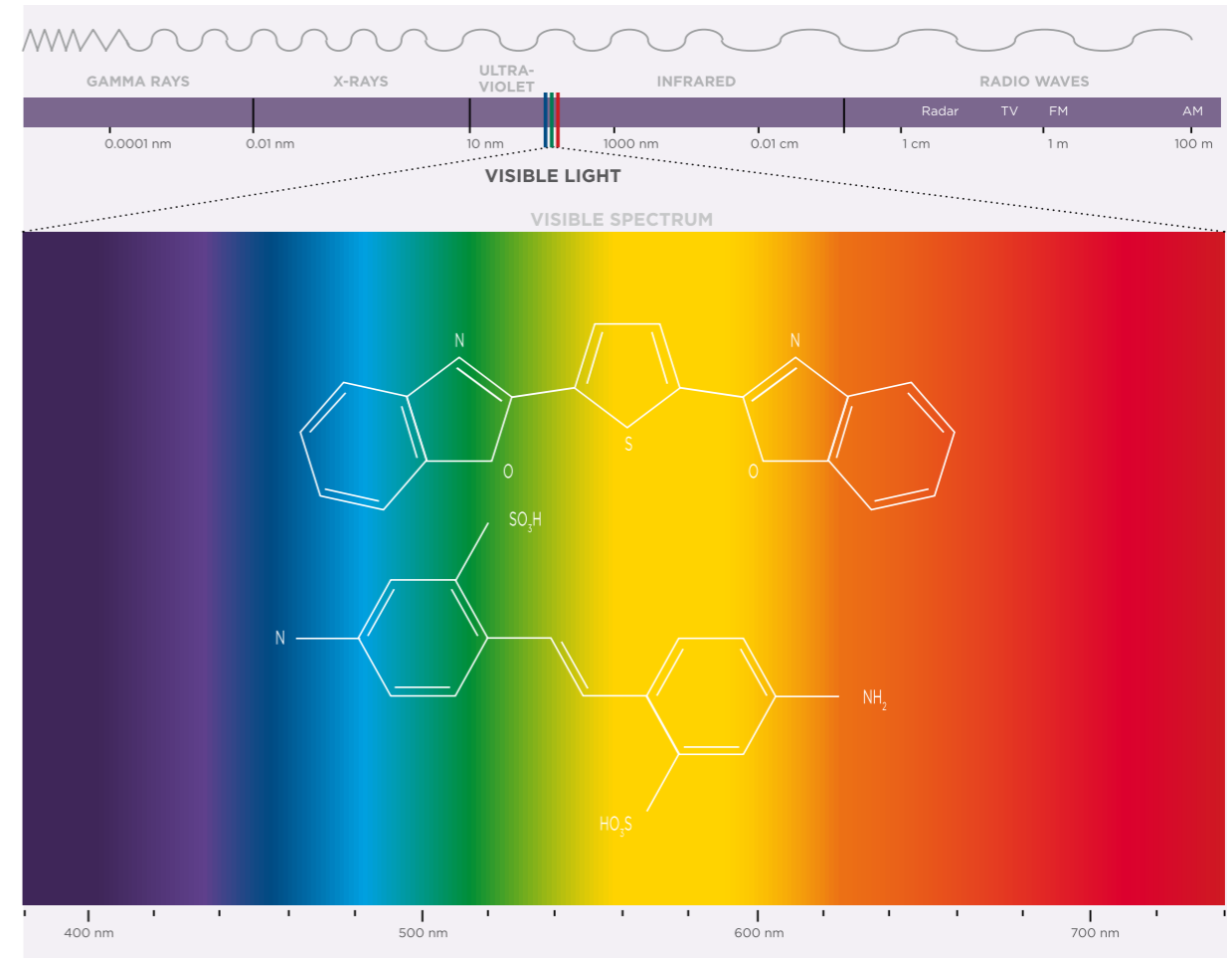
| | | CONTINUOUS | DISCONTINUOUS | SOLID CONTENT % |
|-----------------------|--|------------|---------------|-----------------|
| ESTABILIZADOR H2O2 | Organic stabilizer and sequestering agent for iron in alkaline medium. | - | X | 20 |
| ESTABILIZADOR VP | Organic silicate-free stabilizer. | X | X | 20 |
| ESTABILIZADOR VP CONC | Organic stabilizer of general application, silicate-free, recommended for pad-steam. | X | X | 40 |
| COMPLEX RNB | Silicate-based stabilizer for pad-batch application. | X | X | 40 |

OPTICAL BRIGHTENERS

TECHNOLOGY LEADER IN HIGH PERFORMANCE OPTICAL BRIGHTENING AGENTS



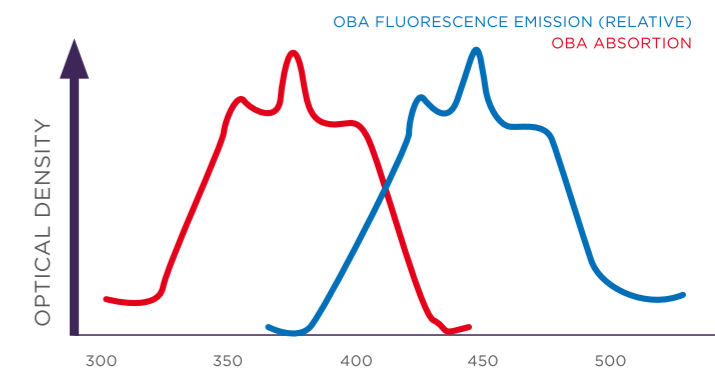
Optical Brightening Agents (OBAs) absorb in the UV range of the spectrum (350-360 nm) and re-emit it in the blue portion of the visible spectrum (400-500 nm). A white surface treated with an optical brightener can emit more visible light than that which shines on it, making a pleasing whiter-than-white appearance.



As a leading manufacturer and exporter of Optical Brighteners, **Color Center**, S.A. offers a wide range of Optical Brightening Agents suitable to be applied on different substrates like Polyester, Cellulose, Nylon, Silk, Wool...

FEATURES AND BENEFITS

- Brilliant, bluish whitening effects
- Good light fastness
- Excellent resistance to heat
- High chemical stability
- Low volatility
- Good compatibility



Major products can be customized as per customer's needs i.e. Shade (bluish, violet, ...) Strength (E Value) and Active content. Just contact us for discuss precise requirements and obtain advice on which products are required to suit your exact needs.

OPTICAL BRIGHTENERS

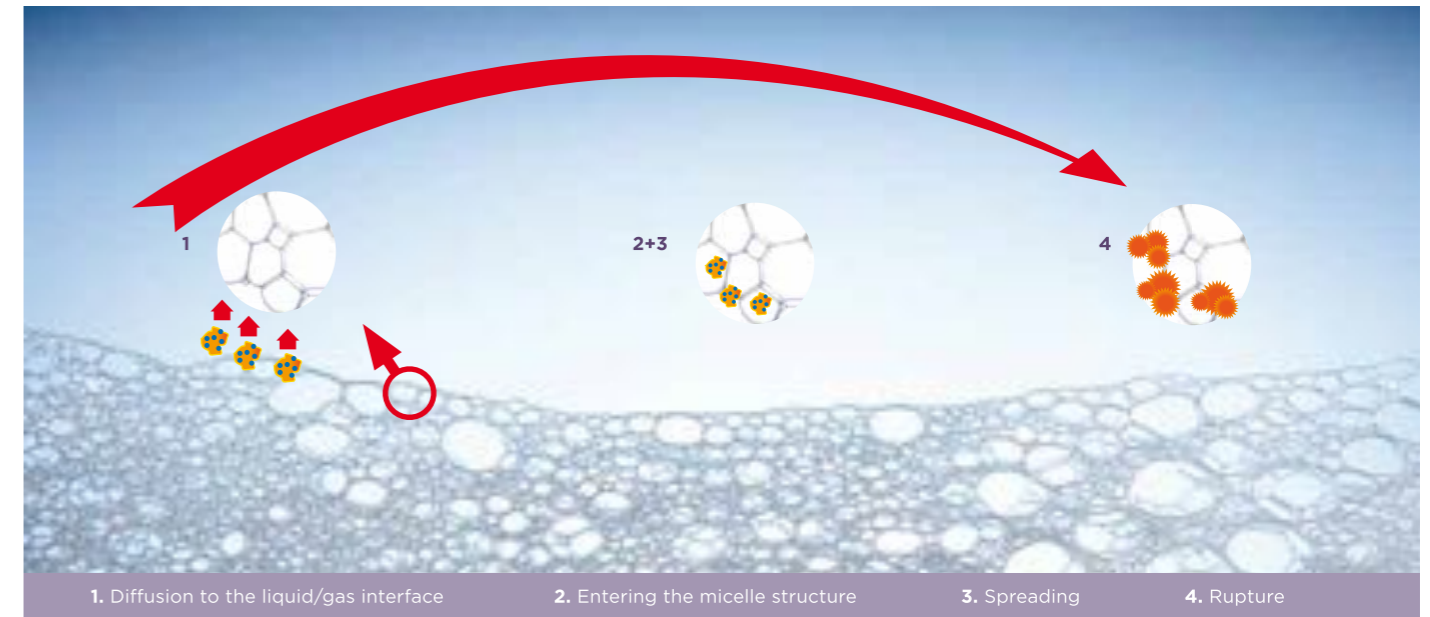
APPLICATION PROCESS

| | | FIBER | AFFINITY | SHADE | CONTIN. | DISCONTIN. |
|-------------------------|--|---|----------|-------------|---------|------------|
| OPTICOL BR LÍQUIDO | Very good stability in acid baths together with resin until pH=4,5. | CELLULOSIC | MEDIUM | NEUTRAL | X | X |
| OPTICOL BU | Good stability in the bleaching baths with peroxide or reducing agents. | CELLULOSIC | LOW | NEUTRAL | X | - |
| OPTICOL NBS/B | Effects of very bright white blue-violet hue. Good stability in peroxide bleaching baths so the reproductibility is improved. Thanks to its high performance and sharpness it is their right OBA for processes "Simply White". | CELLULOSIC | HIGH | BLUE VIOLET | - | X |
| OPTICOL CM-2B | Provides high degrees of white, intense bluish shade. Good stability in peroxide bleaching baths. Suitable for automatic dispersing equipment. | CELLULOSIC | HIGH | BLUE | X | X |
| OPTICOL CM-B | Provides high degrees of white, intense bluish shade. Good stability in peroxide bleaching baths. Suitable for automatic dispersing equipment. | CELLULOSIC | HIGH | BLUE | - | X |
| OPTICOL PB LÍQUIDO | Optical brightener for cellulosic fibers, polyamide, wool and silk. High affinity particularly suitable for the exhaust process. Good stability in bleaching baths with peroxide or hydrosulfite. | CELLULOSIC | HIGH | NEUTRAL | - | X |
| OPTICOL PB LÍQ. B NUEVO | Fluorescent whitening agent with bluish white shade. | POLYAMIDE | HIGH | BLUE | - | X |
| OPTICOL LC/B | Outstanding light fastness: very suitable for swimwear fabrics. Excellent stability to chlorite. Stable over a wide pH range. Excellent stability against reducing and oxidizing agents. | POLYAMIDE | HIGH | BLUE | X | X |
| OPTICOL PA-D | Fluorescent whitening agent with bluish white shade. | POLYAMIDE | HIGH | BLUE | X | X |
| OPTICOL SLC 90% | Fluorescent whitening agent with violet white shade. | POLYAMIDE WOOL SILK CELLULOSIC | HIGH | VIOLET | X | X |
| OPTICOL PAT-S | Optical brightener for polyamide, wool, silk, cellulosic fibers. Applicable by exhaustion and continuous processes. | POLYAMIDE WOOL SILK CELLULOSIC | HIGH | VIOLET | X | X |
| OPTICOL CPB-M | Fluorescent whitening agent with bluish white shade. | POLYESTER | HIGH | BLUE | X | X |
| OPTICOL PES-MB | Optical brightener that provides high fastnesses. Highly recommended for application in peroxide bleaching bath when mixtures of PES/CO are handled. | POLYESTER | HIGH | BLUE | X | X |
| OPTICOL UPR | Optical brightener for polyester fibers and its mixtures. Applicable by exhaustion and continuous processes. | POLYESTER | HIGH | NEUTRAL | X | X |
| OPTICOL TJ-TM | Optical brightener for exhaustion and continuous processes. Confers very bright whites with blue-violet shade. | POLYESTER | HIGH | BLUE VIOLET | X | X |
| OPTICOL PVC | Bisbenzoxazol derivative for incorporation into plastic materials (especially polymers and synthetic resins thermoplastics). High thermal stability (suitable for fiber extrusion processes). High lightfastness. | POLYPROPYLENE POLYSTYRENE VINYL-RESINS COATINGS VARNISHES | N.A. | NEUTRAL | N.A. | N.A. |

ANTIFOAMING AGENTS
GET YOUR FOAM UNDER CONTROL

Color Center's defoamers provide excellent foam control and maximum compatibility at the same time. The well balanced raw material base (organomodified siloxanes, organic oils & waxes, surface-modified silica) leads to a wide range of excellent defoamers, suitable for a multitude of industry applications.

DEFOAMING MECHANISM CRITICAL STEPS:



Color Center's antifoaming/defoaming product range has an attractive cost/performance ratio together with a high performance:

- High compatibility
- No negative side effects
- Long term efficiency
- Good handling characteristics
- Enhanced sustainability

ANTIFOAMING AGENTS

| | | SHEAR STABILITY | ELECTROLITE STABILITY | ACTIVE MATTER % |
|---------------------|--|-----------------|-----------------------|-----------------|
| COMPLEX 1646 | Silicone antifoam of general application, highly effective. | MEDIUM | MEDIUM | 16 |
| ANTIESPUMANTE S159 | Silicone antifoam of general application. With high alkali, electrolyte and shear stability. | HIGH | MEDIUM | 15 |
| ANTIESPUMANTE D-200 | Silicone antifoam concentrate of general application. | MEDIUM | MEDIUM | 30 |
| COMPLEX EV | Antifoam based on vegetable esthers, highly biodegradable. | HIGH | MEDIUM | 24 |
| ANTIESPUMANTE SAE | Mineral oil and organic waxes based defoamer. High stability. | HIGH | HIGH | 100 |



SPECIFIC AUXILIARIES

CHEMICAL AUXILIARIES THAT PERFORM SPECIFIC FUNCTIONS IN PRE-TREATMENT/DYEING PROCESSES

Our auxiliaries create value by improving process efficiency & reliability, safety, protection... while also quality, durability and appearance of goods.

We provide high-quality textile processing chemicals with less impact on the environment and with a world-class knowledge of pre-treatment and dyeing solutions.

FIXING AGENTS

| | |
|-----------------|---|
| ESTERFIX SEC | Formaldehyde free fixyng agent for cellulosic fibers. |
| ESTERFIX FRC-60 | Fixing agent for cellulosic fibers with low Formaldehyde content. |
| ESTERFIX DMP | Crocking fastness enhancer. |
| ESTEROL RWA-D | Fixing agent for polyamide or wool fabrics. |
| ESTERROL RWS | Fixing agent for polyamide or wool fabrics. Stable to concentrated acids. |

HYDROPHILIC AGENTS

| | |
|-------------|--|
| ESTEROL LFP | Lubricant and Hydrophilizing agent for polyester and polyamide fibres. |
| ESTEROL PE | Antistatic and Hydrophilizing agent for polyester fibres. |
| PRODUCTO HP | Hydrophilizing agent for synthetic fibres. |

LUBRICANTS

| | |
|---------------------|---|
| AMPLEX AS | Lubricant agent with dispersing properties. |
| LUBRICANTE FL | Lubricant for all fibres. |
| LUBRICANTE PS | Lubricant for all fibres, suitable for automatic dispenser systems. |
| LUBRICANTE C GRANOS | Special lubricant for elastic fabrics. |
| LUBRICANTE LDA | Special lubricant for elastic fabrics. |

LEVELLING AGENTS

| | |
|---------------------|--|
| ESTEROL I-30 | Levelling agent. Special for printing washing off and redyeing. |
| IGUALADOR CO | Levelling agent for cellulosic fibers. |
| IGUALADOR ORT | Levelling agent for cellulosic fibers. Doesn't block tthe fibre. |
| ESTEROL G | Levelling agent for acid dyes. With dyestuff affinity. |
| ESTEROL SB NUEVO | Levelling agent for acid dyes. With anti-bars effect. |
| ESTEROL WD | Levelling agent for wool dyes. |
| ESTEROL MG-32 | Migrating agent for acrylic fibers. |
| ESTEROL RDA | Retarding agent for acrilyc fibers. |
| ANTIMIGRANTE IS 200 | Antimigrating agent for continous dyeing. |

DISPERSING AGENTS & CARRIERS

| | |
|-------------------|--|
| DISPERSANTE US/P | Levelling-dispersing agent for dispers dyes. |
| COTEMOLL RNF | Detergent and dispersant for scouring and dyeing simultaneous. |
| ESTEROL 626-R | Migrating agent for disperse dyes. |
| ESTEROL 313 | Economic migrating agent for disperse dyes. |
| ESTEROL BS-N LIQ. | Dispersant agent for disperse dyes. |
| ESTEROL 1500 C | Carrier for dyeing poliester fabrics. |
| ESTEROL BFA | Ecologic carrier for dyeing poliester fabrics. |

pH REGULATORS

| | |
|---------------|---|
| AMPLEX TAF | Buffer for disperse dyes. |
| COTEMOLL DIS | Alkaline buffer for scouring polyamide/elastane blends. |
| ESTEROL 2095 | Acid donor for polyamide dyeing. |
| ESTEROL F | Acid donor for polyamide dyeing (suitable for pale shades). |
| ESTERROL AC-P | Alkali donor for reactive dyeing. |
| COMPLEX TA-5 | Acid buffer for enzymatic blasting. |

REDOX PRODUCTS

| | |
|------------------------|---|
| AMPLEX 1001 | Biodegradable sulfur-free reducing agent. |
| RECDUCTOR R CONC | Modified organic reducing agent. Highly concentrated. |
| REDOX PTD | Liquid reducing agent for reduction clearing of polyester fabrics. |
| ANTIRREDUCTOR 1130 | Anti-reducing agent stable in a wide range of pH (alkaline and acid). |
| ANTIRREDUCTOR RD | Anti-reducing agent stable in acid pH. |
| ANTIRREDUCTOR G LIQ | Anti-reducing agent stable in alkaline pH. |
| ANTIRREDUCTOR G GRANOS | Concentrated anti-reducing agent stable in alkaline pH. |



FINISHING

INNOVATIVE SOLUTIONS FOR FASHION AND FUNCTIONAL FINISHES OF TEXTILES

Color Center offers a complete range of finishing chemicals for a wide range of textiles:

- Apparel
- Sports and leisure wear
- Decorative home textiles such as curtains, blinds, mattresses
- High performance materials for protective wear and uniforms
- Outdoor fabrics (awnings)
- Nonwovens used for interlining, filters, medical sterilization materials, automotive industry, ...



Textiles not only have to meet aesthetic requirements such as design, appearance, softness or easy-care, but in many cases should also comply with functional requirements that are attained at the stage of textile finishing, to name just a few:

- Waterproof
- Moisture management
- Fire resistant
- Dimension-stable
- Antimicrobial
- Long-term durability...

| | | | | |
|------------|---------------|-------------|-------------------------|-----------|
| CENTERGARD | RESINA CENTER | IGNIFUGANTE | ROMSOFT SILICONA CENTER | CENTERBAC |
|------------|---------------|-------------|-------------------------|-----------|



However, functionality & aesthetics alone is no longer enough to meet the requirements of millions of end-users. Sustainability and ecology also need to be taken into consideration for life at home, at work or outdoors to be more secure, efficient and healthier.

Eco-design and Sustainability is one of **Color Center's** main driven-forces for innovation.

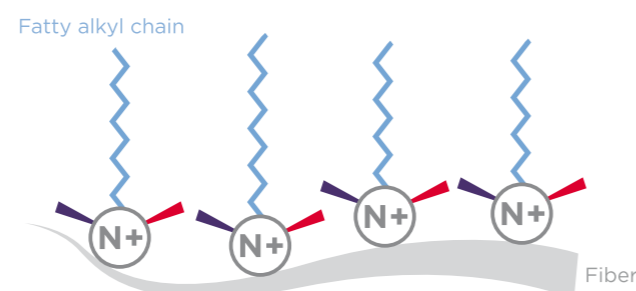
SOFTENERS

ORGANIC SOFTENER DISPERSIONS FOR THE SOFTENING OF TEXTILE GOODS

Proprietary finishing auxiliaries with performance profiles adjusted to various specific requirements.

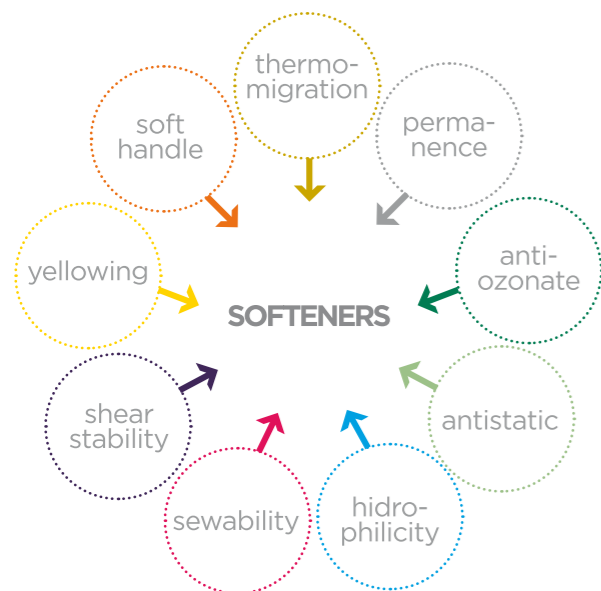


Our quaternaries are substantive to cellulosic fibers and negatively charged textile substrates in general.



From aqueous emulsions or dispersions, organic softeners are deposited onto the fibers, allowing their application by padding or by the exhaust method.

Hand, softness, hidrophilicity and countless other properties can be adjusted depending on the softener and textile substrate type.



SOFTENERS

| PRODUCTO | Description | Solid content (%) | | Viscosity 25°C (cps) | Ready to use | | Concentrated | Ionicity | Appearance | Hydrophobicity | Hydrophilicity | Handle | Low yellowing | high heat resistance | Durability | Lubrication (sewability) | Thermomigration improvement | Anti-Ozonate | APPLICATION | | |
|------------------------------|---|-------------------|------------|----------------------|--------------|---|-------------------|----------|----------------------|----------------|----------------|-------------------|---------------|----------------------|------------|--------------------------|-----------------------------|--------------|-------------|------------|---------|
| | | ph 10(%) | | | - | X | | | | | | | | | | | | | Padding | Exhaustion | Coating |
| PRODUCTO R22 | Oleic esterquat, easy handling at low temp., rapid dispersion in cold water. Good softening & antistatic & rewetting properties. Readily biodegradable. Highly substantive. | 90 | 3 (5%) | <10000 | - | X | cationic | | amber viscous liquid | - | 3+ | soft and fresh | 2 | 3 | - | - | - | - | X | X | - |
| ROMSOFT AQ/85 | Tallow esterquat, easy handling properties even at room temp. Good softening & antistatic properties. Readily biodegradable. Highly substantive. | 85 | 2,5 (5%) | soft paste | - | X | cationic | | soft paste | - | 2+ | soft and fresh | 3 | 4 | - | - | - | - | X | X | - |
| ROMSOFT AQ/90 | Partially hydrogenated tallow esterquat. Good softening & antistatic properties. Readily biodegradable. Highly substantive. | 90 | 2,5 (5%) | paste | - | X | cationic | | white paste | - | 2+ | soft and fresh | 3 | 4 | - | - | - | - | X | X | - |
| SUAVIZANTE OE/2 | Esterquat dispersion. Antistatic softener for all kind of fibres. Readily biodegradable. Also recommended for PES rising. | 13 | 4,5 | <100 | X | - | cationic | | white dispersion | - | 2+ | soft and fresh | 3 | 4 | - | - | - | - | X | X | - |
| SUAVIZANTE 1205-B NEW | Enhanced anti-yellowing & anti-ozonate (gas fading) properties for denim. Good rewetting power. | 15 | 4,5 | <2000 | X | - | cationic | | white dispersion | - | 3 | soft and greasy | 4 | 4 | - | - | 4 | - | X | X | - |
| ROMSOFT TPE | Synergistic mixture. Sewing and napping improver for all fibres. Reduces metal fiber friction ratio. Boosts the re-winding processes of yam and confection of dresses. | 18,5 | 5 | <100 | X | - | cationic | | white dispersion | 3 | - | soft and fully | 2 | 2 | 3 | - | - | - | - | X | - |
| ROMSOFT MG | Antistatic softener for all kind of fibres. Readily biodegradable. Synergistic mixture of esterquat and silicone. Recommended for open-end yarns. | 10 | 4,5 | <100 | X | - | cationic | | white dispersion | - | 2+ | soft and smooth | 3 | 4 | - | - | - | - | X | X | - |
| SUAVIZANTE VL-N | Preparation of wax and polysiloxane compound. Softening agent for textiles of all fibre types, especially for PES fibres. In case of disperse dyeings, favourable behaviour with regard to thermomigration. | 15 | 4 | <100 | X | - | non ionic | | white emulsion | 3 | - | soft and smooth | 3 | 2 | 3 | 4 | - | - | X | - | - |
| SUAVIZANTE FF NUEVO | Softener for acrylic fiber, greasy handle. Facilitates the napping and emerizing operations improvig flexibility and smoothness. | 13,5 | 4 | <100 | X | - | cationic | | white dispersion | 3 | - | Soft and greasy | 2 | 2 | - | - | - | - | X | X | - |
| ROMSOFT CST | Dispersion of a fatty acid derivative. Low yellowing. Gives a very pleasant feel and good anti-static effect on natural & synthetic fibres and their mixtures. | 21 | 4 | <1000 | X | - | slightly cationic | | white dispersion | 3 | - | soft and full | 4 | 2 | 3 | - | - | - | X | X | - |
| ROMSOFT ANF | Dispersion of fatty acid derivative. Softener for all kind of fibres, specially suitable for white fabrics. Good compatibility with optical brightening agents, antistatic. | 16 | 4,5 (100%) | <100 | X | - | non ionic | | white emulsion | 3 | - | soft and full | 4 | 2 | 3 | 4 | - | - | X | X | - |
| ROMSOFT PES | Synergic mixture of fatty acid amides and elastomeric silicone. Recommended for PES fabrics. | 21 | 5 | - | X | - | cationic | | white dispersion | 3 | - | warm, elastomeric | 2 | 3 | 3 | 3 | - | - | X | X | - |
| UNIMIN P | Paraffin macro emulsion. Reduces notably the friction coefficients fiber - fiber and fiber - metal. Antistatic properties. | 37 | 7 | <100 | X | - | cationic | | white dispersion | 3 | - | fresh & smooth | 3 | 4 | 3 | - | - | - | X | X | - |
| ROMSOFT PB | Paraffin cationic macro-emulsion. Reduces notably the friction coefficients fiber - fiber and fiber - metal. Low yellowing and thermomigration. | 50 | 4 | <1000 | X | X | cationic | | macro emulsion | 3 | - | fresh & pleasant | 3 | 3 | 3 | 4 | - | - | X | X | - |
| ROMSOFT CLK | Polyethylene wax macro-emulsion, cationic. Reduces notably the friction coefficients fiber - fiber and fiber - metal. Increases resistance to the abrasion and tear strenght. Reduces tendency to creasing. | 25 | 5 | <100 | X | - | cationic | | macro emulsion | 3 | - | smooth & supple | 3 | 3 | 4 | 3 | - | - | X | X | - |
| EMULSION DE POLIETILENO PE/C | Polyethylene wax macro-emulsion. Reduces notably the friction coefficients fiber - fiber and fiber - metal. Increases resistance to the abrasion and tear strenght. | 37 | 8 | <100 | X | X | non ionic | | macro emulsion | 3 | - | smooth & supple | 3 | 2 | 4 | 3 | - | - | X | X | - |
| ROMSOFT PME/200 | High melting point polyethylene wax micro-emulsion. Reduces notably the friction coefficients fiber - fiber and fiber - metal. Increases resistance to the abrasion and tear strenght. | 36 | 10 (100%) | <100 | X | X | non ionic | | micro emulsion | 3 | - | smooth & supple | 3 | 2 | 4 | 3 | - | - | X | X | - |
| ROMSOFT SF | Mixture of fatty acid esters. Softener for sanfor. | 30 | 5 | <100 | X | - | non ionic | | yellowish liquid | - | 3 | smooth | 2 | 2 | - | - | - | - | - | X | - |
| ROMSOFT FLK PASTA | Mixture of fatty alcohols derivatives and fatty esters, antistatic and cracant softener for flock. | 38 | 5,5 | paste | X | X | non ionic | | white paste | - | 2 | cracant touch | 3 | 2 | 3 | - | - | - | - | X | - |
| ROMSOFT KN | Mixture of fatty alcohols derivatives, antistatic and cracant softener. Pharma approved (sterile gauze). Do not modifies hidrophilicity. | 45 | 8 | paste | X | X | non ionic | | white paste | - | 2 | cracant touch | 3 | 2 | 3 | - | - | - | - | X | - |

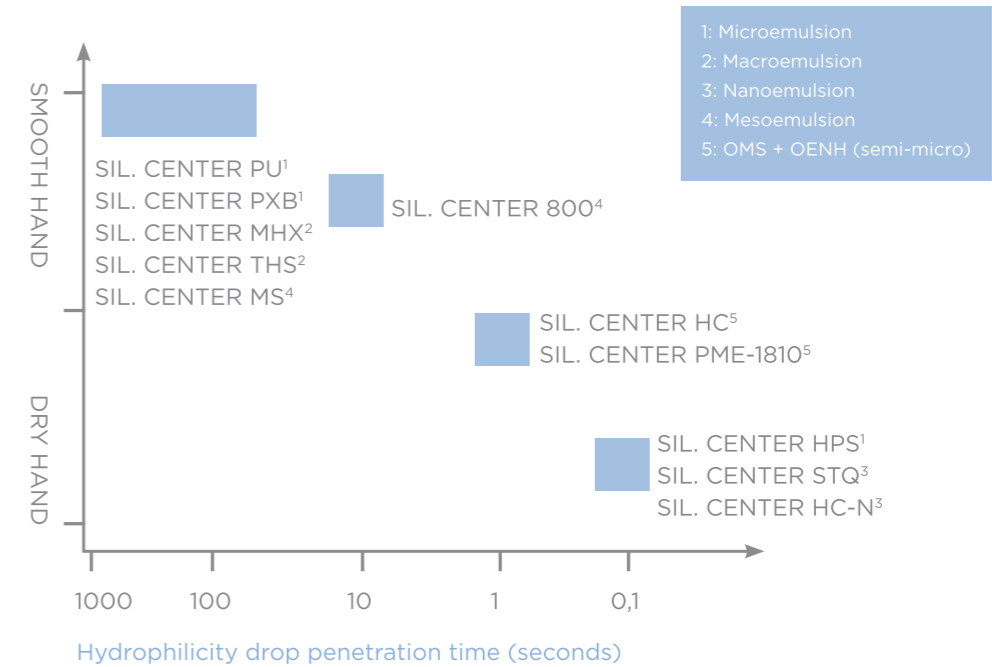
-: No data · 1: Low · 2: Medium · 3: Good · 4: Excellent

SILICONES

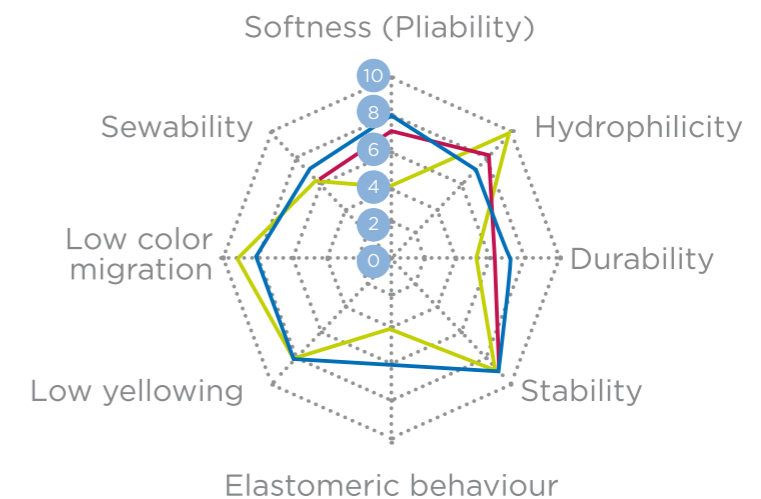
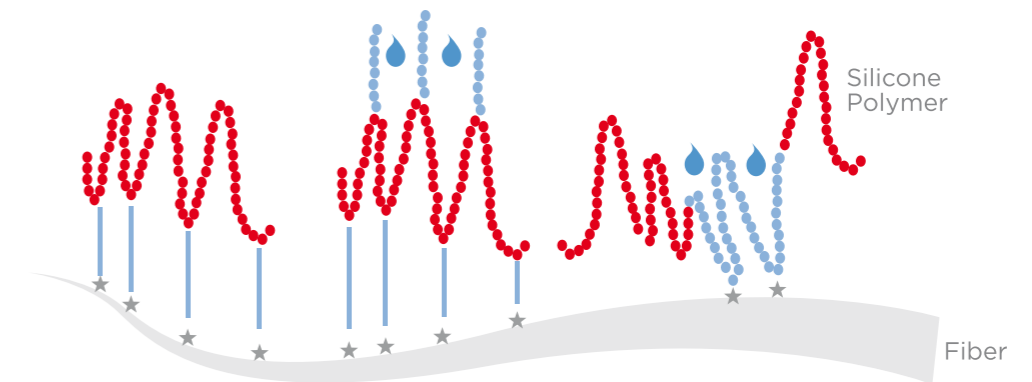
TEXTILE ENHANCERS: CUTTING-EDGE TECHNOLOGY IN SILICONE POLYMERS AND EMULSIONS



COMPARISON OF PRODUCT PROPERTIES ON COTTON FABRIC



DESIGNING THE RIGHT POLYMER MICROSTRUCTURE TO GET THE BEST PERFORMANCE



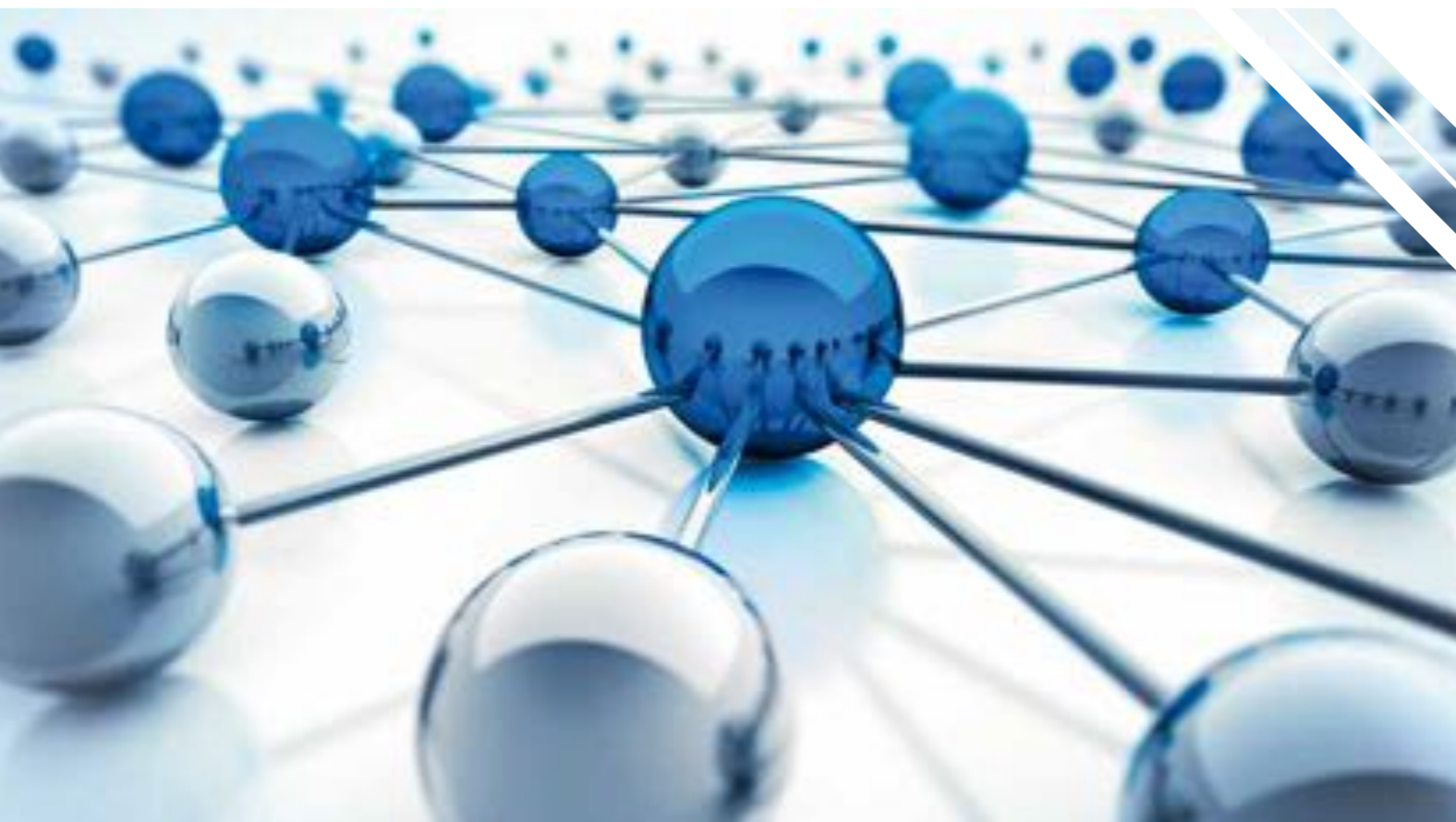
SILICONES

| | | SOLID CONTENT (%) | IONICITY | PARTICLE SIZE | HANDLE | LOW YELLOWING HIGH HEAT RESISTANCE | ELASTOMERICITY | DURABILITY | LUBRICATION (SEWABILITY) | pH STABILITY | SHEAR STABILITY | APPLICATION | | |
|----------------------------------|--|-------------------|-----------|---------------|--------|------------------------------------|----------------|------------|--------------------------|--------------|-----------------|-------------|------------|---------|
| | | | | | | | | | | | | PADDING | EXHAUSTION | COATING |
| SILICONA CENTER DEP | Silicone macro emulsion, color deepening agent. | 40 | non ionic | macro | - | - | - | 3 | - | 2 | 2 | X | - | - |
| SILICONA CENTER THS NUEVA | Silicone macro emulsion, for general application on all kind of fibers. | 30 | non ionic | macro | 4 | 2-3 | 3 | 4 | 3 | 2 | 2 | X | - | X |
| SILICONA CENTER MHX CONC | Silicone macro emulsion, for general application on all kind of fibers. | 63 | non ionic | macro | 4 | 2-3 | 3 | 4 | 3 | 2 | 2 | X | - | X |
| SILICONA CENTER 800 | Silicone semi-macro emulsion. Moisture management properties. | 14 | non ionic | meso | 2-3 | 2-3 | 3 | 4 | 3 | 2 | 2 | X | - | - |
| SILICONA CENTER ZM ULTRA CONC | Silicone macro emulsion. Improves sewability, wash-and-wearrr properties, easy iron and crease recovery. | 60 | non ionic | macro | 3 | 3 | 4 | 4 | 3 | 2 | 2 | X | - | X |
| SILICONA CENTER UM | Silicone macro emulsion, high performance on PES/Cotton fabrics. | 40 | non ionic | macro | 4 | 2-3 | 4 | 4 | 3 | 2 | 2 | X | - | X |
| SILICONA CENTER MS CONC | Premium silky-handle, silicone elastomeric mesoemulsion. Impart a very soft, drapable and elastic hand to a wide range of fiber materials such as cotton (CO), polyester (PES), viscose (CV) and their mixtures. | 58 | non ionic | meso | 4+ | 3 | 4+ | 4+ | 3 | 2 | 2 | X | - | X |
| COMPLEX RTN NUEVO | Hybrid acrylic/polyurethane emulsion. Good crease recovery and pliability. | 33 | non ionic | micro | 3 | 2 | 4 | 3 | 3 | 2 | 2 | X | - | - |
| COMPLEX RTN-FF | Hybrid acrylic/polyurethane emulsion. Good crease recovery and pliability. | 30 | non ionic | micro | 3 | 2 | 4 | 3 | 3 | 2 | 2 | X | - | - |
| SILICONA CENTER PXB | Elastomeric silicone microemulsion. Very soft handle, good wash fastness. | 21 | non ionic | micro | 2-3 | 2 | 2 | 3 | 2-3 | 3 | 3 | X | - | X |
| SILICONA CENTER PU ULTRA CONC | Elastomeric silicone microemulsion. Very soft handle, good wash fastness. | 49 | non ionic | micro | 4 | 3 | 3 | 4 | 3 | 3 | 3 | X | - | X |
| SILICONA CENTER HC EXT. CONC. | Hydrophilic silicone semi-microemulsion. Good crease recovery and easy ironing. Slippery and drapable hand. | 82 | cationic | semi-micro | 3-4 | 2-3 | 2 | 3 | 2 | 4 | 4 | X | X | - |
| SILICONA CENTER STQ-40 | Hydrophilic silicone nanoemulsion. Hydrophilic silicone microemulsion. Good crease recovery and easy ironing. Slippery and drapable hand. | 22 | non ionic | nano | 2-3 | 3 | 2 | 2 | 2 | 4 | 4 | X | X | - |
| SILICONA CENTER PME-1810 | Modified hydrophilic silicone semi-microemulsion. Decreases metal-fiber and fiber friction coefficient. Increases fibre resistance. | 20 | non ionic | semi-micro | 3-4 | 2-3 | 3 | 2 | 4 | 2 | 2 | X | - | - |
| SILICONA CENTER HC-N EXTRA CONC. | Hydrophilic silicone nanoemulsion. Improves touch, greatly increases hydrophilicity, confers a smooth and soft touch. | 80 | non ionic | nano | 3-4 | 3 | 2 | 2 | 2 | 4 | 4 | X | X | - |
| SILICONA CENTER HPS 6 | Hydrophilic ultra-low yellowing silicone microemulsion. Recommended for white fabrics. | 65 | non ionic | micro | 3 | 4+ | 3 | 3 | 3 | 3 | 3 | X | - | X |
| SILICONA CENTER SAN | Elastomeric silicone microemulsion. Very soft handle, excellent shear stability, good wash fastness. Specially designed for garment finishing | 30 | cationic | micro | - | 4 | 2 | 3 | 4 | 3 | 3 | X | X | - |

RESINS & CROSS-LINKING AGENTS

SUSTAINABLE POLYMERS THAT ENHANCE PERFORMANCE

POLYURETHANES-MELAMINES AND GLYOXALS-ACRYLIC EMULSIONS-CROSSLINKERS



Color Center Polymers: sustainable cutting-edge technology.

Developing high-quality coatings that have less impact on the environment is our goal. Our polymer range will help you meet the most demanding requirements. From high quality melamines, glyoxals and waterborne acrylic emulsions to specialty low-VOC polyurethanes and crosslinking agents.

In addition to technical support, we offer a sound understanding of our customers and the markets we serve. Do you need a tailor-made solution? We will develop it for you in a collaborative environment.

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FASHION POLYMERS

Optimal balance of aesthetics, comfort and durability.

Key benefits:

- Chemical and mechanical resistance
- Outstanding handle and appearance for topcoats and base coats
- Low-VOC

POLYURETHANES

| | | CHEMICAL COMPOSITION | SOLID CONTENT (%) | IONIC CHARACTER | NMP/NEP-FREE | VISCOSITY 25° C (mPas) | MODULUS 100 (mPa) | TEXTILE STRENGTH (mPa) | ELONGATION (%) |
|------------------------|--|--------------------------------|-------------------|-----------------|--------------|------------------------|-------------------|------------------------|----------------|
| RESINA CENTER ODG | Film of high hardness with high abrasion resistance and excellent adhesion characteristics to various substrates. Formaldehyde-free alternative to melamine. | Aliphatic-polyester | 40 | A | - | < 500 | 20 | 25 | 250 |
| RESINA CENTER C16 CONC | Semi-rigid, transparent film. Foamable. | Aliphatic-polyester | 35 | A | - | 50-100 | 12 | 22 | 175 |
| RESINA CENTER PUR-C | Soft, transparent, elastic film without residual tack. Foamable. | Aliphatic-polyester | 40 | A | - | 500-1500 | 1.6 | 12 | 800 |
| RESINA CENTER APU | Soft, elastic and transparent film. Recommended as a binder for coatings and printing. | Aliphatic-polyester | 50 | A | - | < 500 | 2 | 30 | 850 |
| RESINA CENTER BL | Very soft and elastic film. Recommended for "plasticizing" finishing compositions requiring high elasticity. | Aliphatic-Polyester /polyether | 30 | A | yes | 75 | 0.7 | 3.0 | 1000 |
| RESINA CENTER MD | Polyurethane dispersion with a very fine particle size. It produces very soft thermoplastic films with a slightly residual tack. | Aliphatic-polyether | 26 | A | yes | 30-70 | 1.7 | 25 | 800 |
| RESINA CENTER NIC | Nonionic, compatible with cationic and anionic products. It provides antipilling effect and improves abrasion fastness. | Aliphatic-polyether | 30 | N | yes | 50-100 | 0.3 | 1.5 | 1000 |
| RESINA CENTER PKA | Amphoteric, compatible with cationic and anionic products. It provides antipilling effect and improves abrasion fastness. Suitable for formaldehyde-free finishes as well as a binder for nonwoven fabrics and felts. Recommended as a anti-felting of wool. Foamable. | Aliphatic-polyether | 30 | Am-pho-teric /A | yes | < 50 | - | - | - |
| PRODUCTO ELS-30 | Non film-forming polyurethane emulsion. In combination with silicone microemulsions provides a fallen handle. | Aliphatic-polyether | 20 | N | - | < 700 | - | - | - |
| RESINA CENTER PKN | Polyurethane nano-emulsion for applications in high-quality finishes. Penetrates the fiber and also gives surface coating. Recommended for hydrophilic special finishes, improves antipilling properties. Improves the feel of traditional resins. | Aliphatic-polyether | 30 | Am-pho-teric /A | yes | < 50 | - | - | - |
| RESINA CENTER JMU | Elastic polyurethane emulsion without residual tack. It provides a full and soft touch. | Aliphatic-polyether | 30 | N | - | < 200 | - | 8 | 600 |

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MELAMINES & GLYOXALS

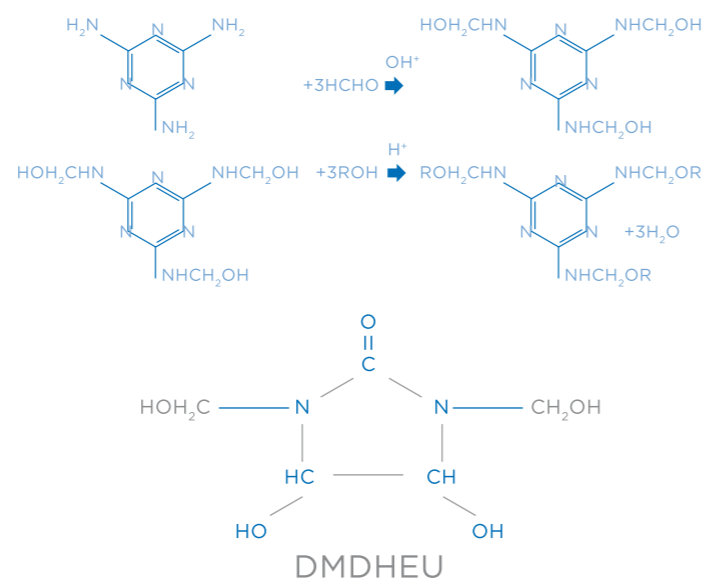
| | COMPOSITION | SOLID CONTENT (%) | IONIC CHARACTER | PH (10%) | FORMALDEHYDE CONTENT (%) |
|-------------------------|--|---|-----------------|----------|--------------------------|
| RESINA CENTER CDL CONC. | Crosslinking agent with low formaldehyde content for easy-care finish of cellulosic fibers and their blends with synthetics. Application by foulard. | Modified N-hydroxymethyl-dihydroxy-ethyleneurea | 58 non ionic | 4.5-5.5 | < 0.6 |
| RESINA CENTER GNC | Crosslinking agent with low formaldehyde content for easy-care finish of cellulosic fibers and their blends with synthetics. Application by foulard. | N,N'-dimethyl glyoxal monoureine urea derivative, integrated catalyst | 60 non ionic | 2-3 | < 0.2 |
| RESINA CENTER EC-LF | Crosslinking agent with ultra-low formaldehyde content for easy-care finish of cellulosic fibers and their blends with synthetics. Application by foulard. Fullfills ECO-TEX standard 100 for textiles in direct contact with the skin, <75 ppm according to Japan Law 112-1973. | Dihydroxyethylene urea | 40 non ionic | 4-5 | < 0.1 |
| RESINA CENTER EC-FF | Crosslinking agent with ultra-low formaldehyde content for easy-care finish of cellulosic fibers and their blends with synthetics. Application by foulard. Suitable for children's clothes, fullfills ECO-TEX standard 100 for textiles in direct contact with the skin, Japan Law 112-1973. Finish law SFS 4996/1986. | Dimethylol-hydroxyethylene-urea | 40 non ionic | 5-6 | Formol free |
| RESINA CENTER MC | Permanent finishing fixer. Calendaring, goffering, pigment printing. Improves washfastness and abrasion. Combined use with water-repellant finishes, hydrostatic column. Semi-rigid finishes. Foulard application on all types of fibers. | Melamine-formaldehyde resin | 60 non ionic | 9-10 | < 1.2 |
| RESINA CENTER MC-LF | Low formaldehyde permanent finishing fixer. Calendaring, goffering, pigment printing. Improves washfastness and abrasion. Combined use with water-repellant finishes, hydrostatic column. Semi-rigid finishes. Foulard application on all types of fibers. | Melamine-formaldehyde resin | 60 non ionic | 9-10 | < 0.4 |
| RESINA CENTER KT | Permanent finishing fixer. Calendaring, goffering, pigment printing. Improves washfastness and abrasion. Combined use with water-repellant finishes, hydrostatic column. Rigid finishes. Foulard application on all types of fibers. | Melamine-formaldehyde resin | 70 non ionic | 8-9 | < 1 |
| PRODUCTO V 100-B | Waterborne resin for rigid finishes. Binder for carpet backing. Aplicable by the padding, sloop padding, doctor blade and foam application methods. | Polyvinyl acetate dispersion | 50 non ionic | 3-5 | Formol free |
| PRODUCTO P-110 | Printing adhesive. Recommended for finishing polyester and polyamide ribbons to give sizing and sustained touch. Film-forming, biodegradable. | Polyvinyl alcohol dispersion | 10 non ionic | 7-7,5 | Formol free |

Melamine has become an integral part of our daily lives. It is used in laminates, dinnerware, adhesives and specialty coatings for paper and textiles.

One of our most active fields of research is the synthesis of melamine with ultra low formaldehyde content.

Easy-care resins for high-end resin finishing:

- Excellent wash and wear properties
- No ironing or easy to iron
- Shape memory
- Washfast softness
- Washfast smoothness
- Wearing comfort



ACRYLIC, VINYL & LATEX

| | COMP. | SOLID CONTENT (%) | APEO-FREE | Tg (°C) | MTFF (°C) | IONIC CHARACTER | VISCOSITY mPAS 25°C | SELF-CROSSLINKING | pH 10% |
|-------------------------|--|-------------------|-----------|---------|-----------|-----------------|---------------------|-------------------|---------|
| RESINA CENTER BC | Waterborne butadiene-styrene copolymer. Gives soft and elastic coatings. For pigment printing. Good bonding capacity. | Butadiene styrene | 38 yes | -30 | - | A | <300 | yes | 8,5-9,5 |
| RESINA CENTER 441 | Waterborne synthetic latex. Suitable for bonding non-wovens produced from natural and/or synthetic fibres. Great flexibility and good resistance to plasticizers, particularly recommend for synthetic leather coatings. Free from plasticizers. | Butadiene styrene | 45 yes | -30 | - | A | <500 | no | 7,0-8,0 |
| RESINA CENTER CRT-9 | Waterborne acrylic polymer. Gives clear, elastic and glossy coatings with a medium softness. Recommended for awnings and lacquers as well as pigment printing. | Acrylic | 50 yes | -26 | 0 | A | <1000 | yes | 5,0-6,0 |
| RESINA CENTER CRT NUEVA | Waterborne acrylic polymer. Gives clear, elastic and glossy coatings with a medium softness. Recommended for awnings and lacquers as well as pigment printing. Formaldehyde-free. | Acrylic | 50 yes | -26 | 0 | A | <1000 | yes | 5,0-6,0 |
| RESINA CENTER RE NUEVA | Waterborne acrylic-styrene copolymer. Gives flexible, glossy and clear coatings. Residual tack. | Acrylic styrene | 50 yes | -15 | 0 | A | <1000 | no | 7,0-8,0 |
| RESINA CENTER AC-60 | Waterborne acrylic resin. Gives soft, clear coatings, without residual tack. Recommended for flocking and coating. Low yellowing. | Acrylic | 60 yes | 0 | 0 | A | <1500 | yes | 6,5-7,5 |
| RESINA CENTER CA | Waterborne cationic acrylic copolymer. Gives clear and glossy coatings, residual tack. Good adhesion, recommended for sizing, flocking and coating. It can also be applied by exhaustion for cationizing and sizing. Not compatible with anionic products and thi. | Acrylic | 46 yes | 0 | 0 | C | <150 | yes | 3,5-4,5 |
| RESINA CENTER STK/100 | Waterborne binder for pigment printing, good dry-clean fastness, soft and comfortable handle. | Acrylic | 35 yes | 5 | 0 | A | <300 | yes | 6,5-7,5 |
| RESINA CENTER STK/NF | Waterborne binder for pigment printing. Imparts dry-clean fastness, soft and comfortable handle. Elastic and transparent film. Formaldehyde-free. | Acrylic styrene | 48 yes | 5 | 0 | A | <500 | yes | 7,0-8,0 |
| RESINA CENTER AGR/2 | Especially suitable for manufacturing paper and packaging adhesives with high setting speed. Adhesives used for lamination of furniture foils (PVC and impregnated paper) can be formulated as well. It is also applied in agriculture, public works, geotextil. | Vinyl copolymer | 60 yes | 5 | 0 | A | <4000 | no | 4,5-5,5 |
| RESINA CENTER D | Additive for "soil release" finishing of cellulosic or synthetic fibres by foulard. Gives hard coatings, recommended for selvedge sizing. | Acrylic copolymer | 50 yes | 38 | - | A | <200 | yes | 3,0-4,0 |
| RESINA CENTER AD | Waterborne acrylic resin. Imparts a supple, hard and elastic handle, with good fastness to dry-cleaning and good wash-fastness. Outstanding mechanical stability, recommended as a binder for non-woven. | Acrylic | 45 yes | 48 | 32 | A | <200 | yes | 4,5-7,5 |
| RESINA CENTER ES | Waterborne binder for pigment printing, recommended for the formulation of lacquers. Recommended for printing lycra fabrics due to its outstanding elasticity. | Acrylic styrene | 35 yes | - | 0 | A | <300 | yes | 5,5-7,5 |

CROSSLINKING AGENTS

| | COMP. | SOLID CONTENT (%) | IONIC CHARACTER | VISCOSITY 25°C (GPs) | pH t.c. | RECOMMENDED APPLICATION TEMP. (°C) |
|-----------------|---|------------------------------|-----------------|----------------------|---------------|------------------------------------|
| PRODUCTO ICB | Substantially improves the mechanical properties of coatings based on polyurethane resins, formaldehyde-free. | Aliphatic blocked isocyanate | 45 N | < 150 | 7,0-9,0 | 150 |
| PRODUCTO ICL | Crosslink agent that improves the efficiency of polyurethane and fluorocarbon coatings. Improves durability and strength. Free of PFC, PFOA, PFOS, APEO and tin derivatives. | Aliphatic blocked isocyanate | 40 N | < 150 | 5,0-5,5 | 80-120 |
| PRODUCTO LAD | Improves film formation and durability of fluorocarbons, increases the water column, is compatible with N-methylol compounds. | Aliphatic blocked isocyanate | 25 C | < 150 | 4,0-5,0 | 150 |
| PRODUCTO BI-125 | Crosslink agent that improves the efficiency of the coatings based on polyurethane and acrylic resins. It provides durability, adhesion and resistance. | Aliphatic blocked isocyanate | 30 A | < 150 | 7,0-9,0 | 95-110 |
| CATALIZADOR MG | Inorganic catalyst employed in the textile industry as a curing agent in the finishing of high-quality cotton and their blends with synthetic fibers using urea formaldehyde resins, melamine formaldehyde resins and reactants in general. | Inorganic salt | 100 - | powder | 4,5-5,0 (10%) | N.A. |
| CATALIZADOR ZN | Inorganic catalyst employed in the textile industry as a curing agent in the finishing of high-quality cotton and their blends with synthetic fibers using urea formaldehyde resins, melamine formaldehyde resins and reactants in general. | Inorganic salt | 60 - | < 150 | 2,5-3,5 | N.A. |
| PE 507/CAT | Inorganic catalyst employed in the textile industry as a curing agent in the finishing of high-quality cotton and their blends with synthetic fibers using urea formaldehyde resins, melamine formaldehyde resins and reactants in general. | Inorganic salt | 40 - | < 150 | 2,5-4,0 | N.A. |

WATER AND OIL REPELLENTS

EXPERTISE IN WATER AND OIL REPELLENCY

Nowadays different types of finishes are used to confer Durable Water Repellency properties (DWR) to textiles, we can classify them by type of chemical used:

- Per- and polyfluorinated products (fluoropolymers)
- Hydrocarbons & wax emulsions
- Modified melamine resins
- Silicones
- Dendrimers & 3D polymers

The fluorocarbons are a type of fluoropolymer whose unique microstructure gives very special properties to the treated fabrics: durable water & oil repellency (DWOR), soil release, stain resistance.



We provide customer solutions through responsive product & technical support.

- Best performance
- Wide application
- Maintaining soft hand
- Cost / performance

- Selection of proper grade
- Recommending finishing recipes
- Technical support
- Trouble shooting

APPLICATION OF COLOR CENTER'S DWR AND DWOR RANGE



WATER REPELLENTS FLUORINE FREE

| | | FIBER TYPE | APPLIC. METHOD | | | | |
|------------------|---|---------------|----------------|------------|---|---|---|
| | | | FOULARD | EXHAUSTION | | | |
| | IONIC CHARACTER | WASH FASTNESS | COTTON | SYNTHETIC | | | |
| UNIPERL Z | Water repellent for all type of fibres, zirconium salt paraffin based. | C | - | X | X | X | X |
| UNIPERL AL | Water repellent for all type of fibres, aluminium salt paraffin based. | C | - | X | X | X | X |
| UNIPERL CFF | Permanent water repellent for all type of fibres. Based on fatty derivatives. Extender for fluorocarbons. | C | X | X | X | X | - |
| PRODUCTO FMP | Permanent water repellent for all type of fibres. Based on synergistic mixture of fatty acid derivatives and paraffins. | C | X | X | X | X | - |
| CENTERGARD D-ECO | Permanent water repellent based on 3D polymer technology. | C | X | X | X | X | - |
| CENTERFOB HN | Permanent water repellent based on reactive polydimethylsiloxane. | N | X | X | X | X | - |
| CENTERFOB HC | Permanent water repellent based on reactive polydimethylsiloxane. | C | X | X | X | X | - |

FLUOROCARBONS

| | | FIBER TYPE | | APPLICATION FIELD | | | | |
|---------------------|--|------------------|-----------|-------------------|-------------|---------------------------|------------|---|
| | | COTTON | SYNTHETIC | AWNING | TABLE LINEN | DRESS, CLOTHES & WORKWEAR | UPHOLSTERY | |
| | IONIC CHARACTER | LOW TEMP. CURING | | | | | | |
| CENTERGARD BWR CONC | Fluorcarbon C8, general application. High concentration. | C | - | X | X | - | X | X |
| CENTERGARD 50/BWR | Fluorcarbon C8, recommended for awning and synthetic fibers. | C | - | - | X | X | - | - |
| CENTERGARD 50/BWR-6 | Fluorcarbon C6, recommended for awning and synthetic fibers. | C | - | - | X | X | - | - |
| CENTERGARD FR/1 | Fluorcarbon C8, special use for awning. Maximum hydrophobicity. | C | - | X | X | X | - | - |
| CENTERGARD 24 BR | Fluorcarbon C8, special use for awning and synthetic fibers. High concentration. | C | - | - | X | X | - | - |
| CENTERGARD ATR | Fluorcarbon C8 for cotton and blends. | C | - | X | - | - | X | X |
| CENTERGARD 4228 | Fluorcarbon C6, general application. Low temperature condensation. | C | X | X | X | X | X | X |
| CENTERGARD RSX | Fluorcarbon C6, does not affect flame retardant properties (recommended for Trevira CS). | C | - | - | X | - | - | X |
| AMPLEX NI | Fluorcarbon C8, nonionic, for general application. | N | - | X | X | - | X | X |
| CENTERGARD CT | Fluorcarbon C8, recommended for Stain Release finishing. | C | - | X | X | - | X | X |
| CENTERGARD D6i | Fluorcarbon C6 and 3D polymers, general application. | C | X | X | X | X | X | X |

FLAME RETARDANT AGENTS

FLAME RETARDANT TECHNOLOGY FOR TECHNICAL TEXTILES



WHY FLAME RETARDANTS?

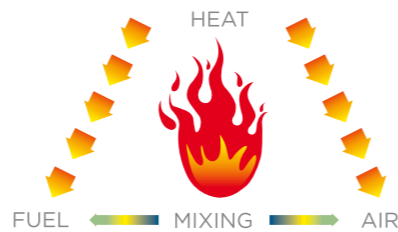
Flame retardants are chemicals which are added to combustible materials to render them more resistant to ignition.

The protection of human body is essential in situations of risk, heat or flames. With this mind, **Color Center**, S.A., offers our FR range of products, in order to provide the required levels of safety and protection.

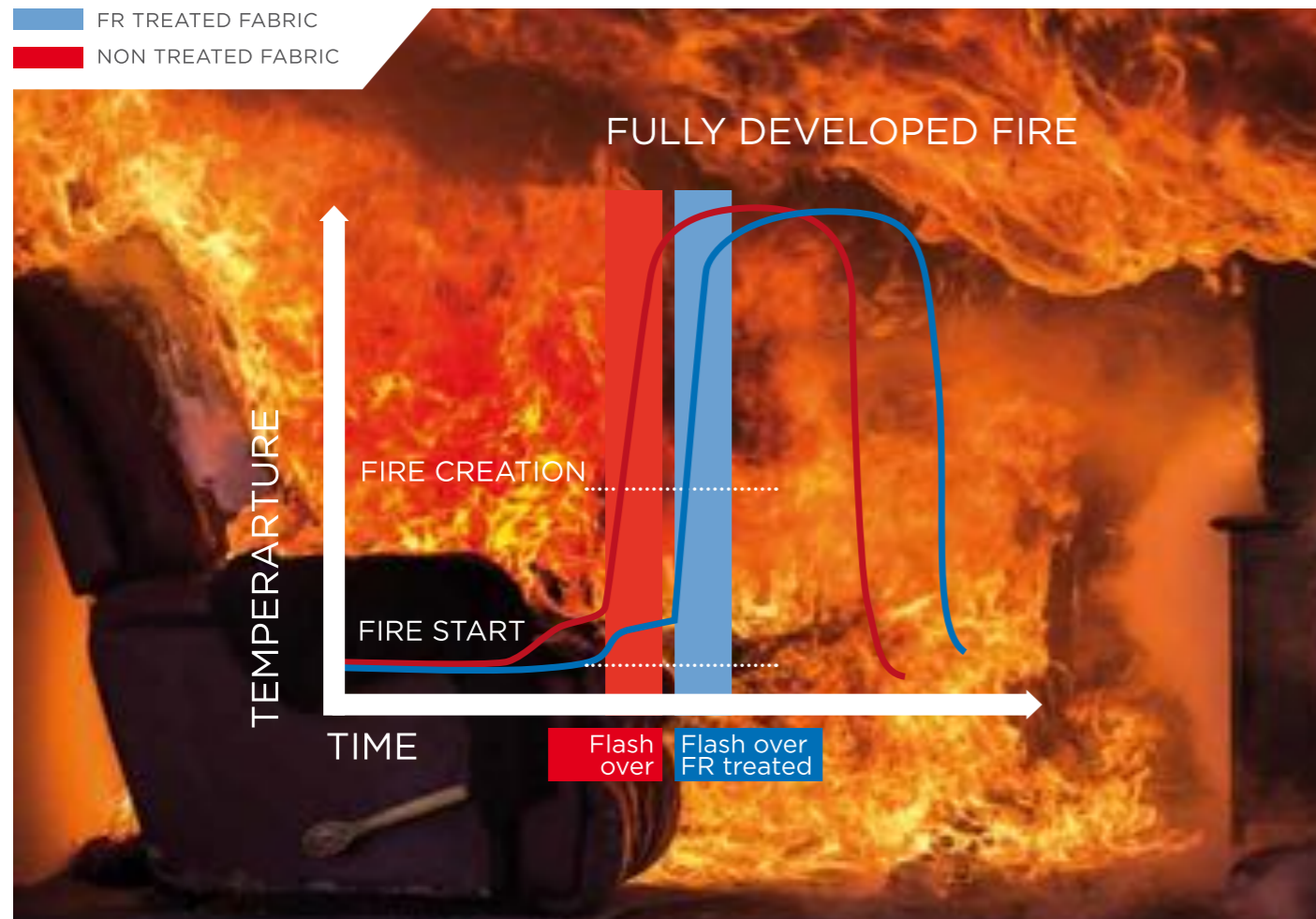
HOW DO FLAME RETARDANTS IMPROVE TEXTILE FIRE SAFETY?

- Prevent textiles from catching fire
- Reduce the rate of burning and prevent fire spread (flash-over)

The fire triangle shows that 3 factors must coincide in order to propagate a fire: the fuel, the air and the heat. It's enough to interfere on one of those factors to break the cycle.



FR TREATED FABRIC
NON TREATED FABRIC



CURRENT FLAME RETARDANT CONCERNS

Brominated flame retardants (BFRs) have been used commercially for several decades to fire-proof plastics, textiles and electronics.

Environmental concern related to the use of BFRs has been growing in recent years since some BFRs have shown to be persistent, bioaccumulative, toxic, and undergo long-range atmospheric transport.



Color Center's focus on "greener" chemistry results in a small but efficient range of ECO-designed FR products that are globally available wherever halogen-free FR solutions are needed.

FLAME RETARDANTS

| | | | | | | | | | | | | APPLICATION | | | | | |
|----------------------|---|----------------------------|---|---|---|---------|-------------|---|---|---|---|--------------|---|-------------------------|-----------|------------------|---------|
| | | | | | | | | | | | | READY TO USE | CONCENTRATED FR (only used as FR additive in formulations) | HALOGEN & ANTIMONY-FREE | PH (100%) | WATER SOLUBILITY | DURABLE |
| IGNIFUGANTE EXECOFR3 | Organic phosphorus compound for exhaustion. Permanent flame retardant for PES fiber. Fullfils EN 1021 part 1 & 2, EN 532, NF G 07-184 ó NF P 92-507. | Clear liquid | X | - | X | 5 | dispersable | X | - | - | - | - | - | X | - | - | - |
| IGNIFUGANTE COW | Reactive organic phosphorus compound. Permanent flame retardant for cellulosic fiber. Compatible with easy-care finishings. | Clear liquid | X | - | X | 4,5 | soluble | X | - | - | X | X | X | - | - | - | - |
| IGNIFUGANTE TA | Organic phosphorus compound. Flame retardant for PES and PA . Permanent. Compatible with WOR finishing (fluorocarbon resins). | Viscous liquid | X | - | X | 3 | soluble | - | - | X | X | - | X | - | - | - | - |
| IGNIFUGANTE WK | Zirconium salt derivative for permanent flame-proofing of wool fabrics. | White crystalline solid | X | - | X | 4 (10%) | 15,5 g/l | X | - | - | - | X | - | X | - | - | - |
| IGNIFUGANTE T-6 | Blend of inorganic salts used for finishing of technical textiles and nonwoven. Dust-free. | Clear, greenish liquid | X | - | X | 7 | soluble | - | X | - | X | X | X | - | - | X | X |
| PRODUCT 1383 | Inorganic halogen-containing salts. Non permanent flame retardant for wool and synthetic fibers (PES, PA). Compatible with WOR finishing agents as fluorocarbons. | Clear liquid | X | - | - | 6 | soluble | - | X | - | X | X | X | - | - | - | - |
| IGNIFUGANTE TSK | Inorganic phosphate salt for the flame retardant finishing of cellulose and woollen materials and their blends with synthetic fibres. suitable to pass BS 5852 source 5 requirements. capable for water soaking requirements according to DIN EN/BS 1021, Part 1. | Clear liquid | X | - | X | 7 | soluble | - | - | X | X | X | X | - | - | - | - |
| CENTERLOOK PY8 | Foamable compound for obtaining fire-proof coatings on textile substrates. Gives flexible coatings with a leather-like handle. For curtains and black outs. | Greyish viscous dispersion | X | - | - | 9 (10%) | dispersible | X | - | - | - | - | - | - | - | X | - |
| CENTERLOOK HF-PY7 | Foamable compound for obtaining fire-proof (back) coatings on textile substrates. Gives flexible coatings. Fullfils BS 5852 part 1 & 2. | Greyish viscous dispersion | X | - | X | 9 (10%) | dispersible | X | - | X | X | X | - | - | - | X | - |
| CENTERLOOK HF-TAG | Compound for obtaining fire-proof (back) coatings on textile substrates. Gives flexible coatings . Fullfils BS 5852 part 1 & 2. | Greyish viscous dispersion | X | - | X | 9 (10%) | dispersible | X | - | X | X | X | - | - | X | - | - |
| RESINA CENTER LIG/3 | Fire-proof resin for back-coating of hupholstery fabrics. Gives elastic and soft back-coatings. | White paste | X | - | X | 7,5 | dispersible | X | - | - | - | - | - | - | X | - | - |
| IGNIFUGANTE MT | Antimony trioxide + 4% DIDP, dust-free. Synergistic agent for halogen flame-retardant formulations. | White powder | - | X | - | - | not soluble | - | - | - | - | - | - | - | X | X | - |
| IGNIFUGANTE ALH | High purity hydrated aluminium hydroxide. Flame retardant for flame-proofing of polymers and waterborne resins. | White powder | - | X | X | - | not soluble | - | - | - | - | - | - | - | X | X | - |
| IGNIFUGANTE PV-500 | Triaryl phosphate ester. Recommended as a flame retardant additive for PVC, flexible polyurethanes, cellulose resins and synthetic rubber. | Clear liquid | - | X | X | - | not soluble | - | - | - | - | - | - | - | X | X | - |

ANTI-SLIP AGENTS

AMPLEX SIL-AN Colloidal silica dispersion. Anti-slip agent for finishing applications. Anionic, can be used in combination with resins, softeners, fluorochemicals and majority of finishing auxiliaries. Anyway, preliminary trials are always recommended.

AMPLEX F-30 Cationic colloidal silica dispersion. It is an aqueous dispersion of a polymer designed to increase the friction and abrasion coefficient of yarns and fabrics. Antislip agent preventing tissue distortion caused by landslides warp and weft that occur in certain articles of man-made fibers. It is compatible with cationic and nonionic products. It can be applied together with water repellents.

ANTI-STATIC AGENTS

ANTISTATICO H NUEVO Cationic fatty acid derivative. Anti static agent for cellulose and synthetic fibers. High antistatic effect on acrylic, cellulose and polyester fibers. Application by immersion, spray, exhaustion or padding onto any kind of fiber (flock, cable, piece). Is stable to hard water, electrolytes and acids under standard concentrations.

ANTIESTA-TICO S-100 Non ionic fatty acid derivative. Emulsifier and non ionic detergent with dispersing and antistatic properties for synthetic fibers. Very good lubricant effect, reduces the metal-fiber friction ratio and facilitates the napping and emerizing operations improving flexibility and smoothness. Doesn't modify the shade of dyes.

ANTIESTA-TICO P-552 Anionic fatty acid derivative. Antistatic for synthetic fibers. Gives high antistatic effect for all kind of synthetic fibers, particularly polyester. Doesn't impair thermomigration and rubber fastness. Doesn't modify the shade of dyes and whiteness.

SANITIZING AGENTS

Color Center's sanitizing agents provide safe and effective protection against the microbiological spoilage, extending the life of products and treated articles.



Broad preservative spectrum for the most varied products and articles:

- Waterborne polymers & resins
- Detergency
- Wax & fatty emulsions
- Plastisols
- Coatings
- Textile finishing
- Paints & lacquers
- Industrial & domestic wastewater

Effective protection against:

- Mites
- Bacteria
- Fungi
- Algae
- Yeasts

SANITIZING AGENTS

| | |
|--------------------------|---|
| CENTERBAC AG | Silver ions dispersion deposited on inorganic matrix. Anionic. Excellent bacteriostatic qualities against a wide range of gram- positive and gram-negative bacteria including MRSA and against yeast and fungi, preventing bacterial growth and thus the production of bad odors. Applicable on all types of fibers, particularly recommended for synthetic fabrics even those in contact with skin. |
| UNIBACTER K-30 | Synergistic mixture of heterocyclic compounds, nonionic. Provides a lasting effectiveness against fungi, bacteria and algae. Applicable on goods intended canopies, awnings, fabric for tents, shower curtains and in general, all those items which are subjected to weathering or water contact. |
| CENTERBAC 29-BTC A.C. | Special polymer, antimicrobial for textiles. Cationic. It is a bactericide with a broad spectrum activity against gram positive and gram negative bacteria, fungi, algae and yeast, preventing deterioration and discoloration of the substrate. It can be used in the following textile fields: textile shirting, upholstery, sheets, blankets, underwear, socks, towels, disposable diapers, awning, insoles for shoes, shower curtains, etc. |
| CENTERBAC DC4 DIDP | Antimicrobial and fungicide for plastics whose active ingredient is 4,5- Dichloro - 2 n -octyl - 4 - Isotioazolin - 3-one. It works effectively at low concentrations, providing long- term protection against bacteria and fungi on treated articles. It also helps prevent odors, staining and premature deterioration of the article due to the growth of microorganisms. |
| UNIBACTER IM | Fungicidal agent for coatings and textile finishes whose active ingredient is a mixture of heterocyclic compounds. The main fields of application are protection against the formation of molds of all kinds og goods intended for canopies, awnings, fabric for tents, shower curtains and in general, outdoor items subjected to weathering or in contact with water. |
| CENTERBAC M | Mosquitoes repellent agent whose active ingredient is a compound based on synthetic pyrethroids. It is a product developed to repel insects like mosquitoes, mites, moths, termites, fleas, ants, lice... Confers fastness to washing at 40°C to fabrics made with synthetic fibres and its mixture with natural fibres when used in conjunction with special acrylic binders. |
| CENTERBAC VR-6 | Heterocyclic derivative used as a special preservative agent for enzyme preparations. Avoid the alterations produced by the microorganisms in the enzyme preparations without affecting the activity thereof. |
| CENTERBAC RW | Heterocyclic derivative used as a preservative agent for surfactants and emulsions. It is designed to avoid the alterations produced by the microorganisms in surfactants, detergents, emulsions of oils, greases, pastes, etc., either in storage or during textile application. |
| CENTERBAC ZP30 | Fluid aqueous dispersion of zinc pyrithione. Provides antibacterial and antifungal properties on home textiles, carpets wipes, latex foams, elastomers, mattresses, filters, etc. It can be applied to any type of textile fiber although its application is not recommended on pure polypropylene fibers. |
| CENTERBAC TP-30 | Synergistic mixture of quaternary ammonium compounds, remains effective over a wide pH range: 3 - 10 and temperature. It has a broad spectrum of activity, being effective against bacteria, algae, fungi and yeasts. It has cationic surfactant character. It is compatible with most plastic materials: PVC, PTFE... |

MICROENCAPSULATED AND CONTROLLED RELEASE PRODUCTS

CONTROLLED RELEASE TECHNOLOGY FOR LONG-LASTING FINISHING EFFECTS

Microencapsulation allows a controlled release of fragrances and active ingredients onto new clothing and furnishing fabrics. Microcapsules are anchored on the fibers allowing a controlled release of actives when the polymeric wall fractures. **Color Center** can provide those long-lasting finishes you desire, just IMAGINE!!!!

For durability through multiple washing and wearing cycles we have designed specific binders:

- RESINA CENTER BC
- RESINA CENTER PKN (polyurethane nanoemulsion)

Microcapsules are generally applied during the finishing process, by exhaustion or padding, they can also be applied by spray. Capsules have been dermatological tested and found to be safe to skin. They have also been eco-tested and when applied to textiles will pass the Oekotex 100 standard.

MICROENCAPSULATED AND CONTROLLED RELEASE PRODUCTS

| | |
|-----------------------------------|---|
| CENTERFINISH OND | Fatty acid derivate in an aqueous solution. Odour killer, to be applied on all kind of surfaces. Stable in alkaline conditions, for acidic cnditions previous trials are recomended. |
| CENTERFINISH RMF | White dispersion of an organic complex. Anionic. Provides mosquit repellence to the treated fabric. Can be applied on all kind of fibers or garment,especially on cotton, polyester and its blends. |
| CENTERFINISH AM | Self-emulsifying concentrate. Nonionic. Imparts insect repellence on wool and its mixtures. Based on permethrin. Provides resistance to moths to a value of 3 as " Wools of New Zealand", especially in carpets and rugs. |
| CENTERFINISH DCI NUEVO | Special product for the anti-stress finishing of fabrics, based on Tourmaline (particle size: 3µm). Nonionic. Renders the treatd fabrics with anti-stress properties, also activates negative ions thus providing a feeling of natural wellness. Recommended for synthetic fibres. |
| CENTERFINISH ALV | Synergistic blend of natural extracts. Slightly cationic. Contains Chitosan and Aloe Vera thus providing to the finished fabric moisturizing and hydrating properties. |
| CENTERFINISH AR (generic name) | Microcapsules dispersion containing a variety of perfumes upon customer request, gives to the fabric different kinds of frangances like: Vanilla, Strawberry, Orange, Apple, Mint, Rose, Lavender, Red Berry, Lemon, Jasmine, Peach, etc. Can be applied by exhaustion, padding, coating or printing process. |
| CENTERFINISH CDV | Microcapsules with a low melting point paraffin. Thanks to PCM technology, absobrs or re-releases heat according to body requeriments. Therefore it helps to keep a comfortable body temperature. |
| CENTERFINISH GINSENG | Microcapsules based on the concept of aromatherapy, contains ginseng extract among other active ingredients. Confers energizing and anti-stress properties to treated fabrics. |



ENZYMES

CREATING TEXTILES USING THE BEST TECHNOLOGY AVAILABLE

SAVE TIME, WATER, ENERGY AND CHEMICALS WHEN USING ENZYMES IN THE TEXTILE PRODUCTION

Chemicals used in industrial processes are one of the most severe threats to nature and man today.

By using enzymes we can maintain the living standards we have today and at the same time preserve the environment for our children. And enzymes do not just replace chemicals. They also reduce the consumption of raw materials, energy and water, giving real benefits to both the environment and industry.

Color Center offers many specialized enzymatic compounds for textile industry processes: biopolishing, desizing, bleach clean-up, bioscouring, denim finishing, fashion... helping manufacturers to produce goods of higher quality, save energy and help ensure a safer working environment.

Enzymes are biologically active proteins which are able to catalyze biochemical reactions. Like all other proteins, enzymes are made of amino acids. Each enzyme is made of between a hundred and upwards of a million amino acids linked by chemical bonds in a specific sequence that determines 3D folding and therefore its function.

ENZYMES

| | | APPEARANCE | FAMILY | pH | T(C°) | APPLICATION PROCESS | | | |
|-----------------------|--|------------|-------------------|---------|--------|---------------------|---------------|---------|-------|
| | | | | | | CONTINUOUS | DISCONTINUOUS | GARMENT | DENIM |
| UNIZIM PWO | Removes by enzymatic hydrolysis the lint and peeling which are caused by friction in WO fibers and mixtures thereof. Suitable for overflow, Jett, etc., ... | liquid | protease | 10 | 40 | - | X | - | - |
| UNILITE II-S | Eco-designed product, specifically formulated and buffered for Denim discoloration, does not affect the lycra. | powder | laccase | 4-5 | 60-70 | - | - | X | X |
| UNILITE DCF | Indigo fading enzyme at room temperature. Designed for a wide range of effects on denim, significant advantages over other techniques based on hypochlorite. | powder | peroxidase | 4.5-5 | 25-35 | - | X | - | X |
| UNIZIM BIO | Particularly suitable for the bio-preparation processes of yarn or cotton and mixtures thereof. Optimum results regarding hydrophilicity and demineralization without loss of strength or DP .. | liquid | pectinase | 6-9 | 50-60 | X | X | - | - |
| UNIZIM COMBI | Cellulase+catalase. Enzymatic product specifically designed for the biopolishing process, peroxide removal and dyeing in one bath. It helps to save energy, time and water, ensuring high quality fabrics. | liquid | combi | 4-8 | 50-60 | - | X | X | X |
| UNIZIM CRO EXTRA CONC | Cellulase + alpha-amylase, concentrated. Achieves excellent abrasion effect on the denim simultaneously to the preparation process, minimizes indigo backstaining. | powder | combi | 6.5-7.5 | 40-55 | - | - | X | X |
| UNIZIM CRO | Cellulase + alpha-amylase. Achieves excellent abrasion effect on the denim simultaneously to the preparation process, minimizes indigo backstaining. | powder | combi | 6.5-7.5 | 40-55 | - | - | X | X |
| UNIZIM MPD | Alpha-amylase + pectinase. Bioscouring and desizing in one step, without adding detergents, wetting agents, or pH regulators. | liquid | combi | 6-8 | 40-60 | X | X | X | - |
| UNIZIM PTM | Neutral cellulase containing antibackstaining and buffering agents to pH 6.0-7.5. For use in jeans abrasion (stonewashing). | powder | neutral cellulase | 6-7.5 | 45-60 | - | - | X | X |
| UNIZIM N-10/C | Powder formulation of a neutral cellulase together with buffer and antibackstaining. Stonewashing for denim. | powder | neutral cellulase | 6-7.5 | 50-60 | - | - | X | X |
| UNIZIM DR | Used for biopolishing, it can be used before, during or after dyeing. | liquid | neutral cellulase | 5-8 | 50-60 | - | X | X | X |
| UNIZIM D-LT | Designed for biopolishing, it can be used before, during or after dyeing. Also for denim. | liquid | neutral cellulase | 5-8 | 35-45 | - | X | X | X |
| UNIZIM D-LT/2 nuevo | Neutral cellulase containing antibackstaining. Recommended for biopolishing, it can be used before, during or after dyeing. | liquid | neutral cellulase | 5-9 | 35-45 | - | X | X | X |
| UNIZIM CNB Plus | Recommended for biopolishing. The product is suitable for working in garment and fabric (piece) facilities (jet, overflow, etc.). Excelent pice/quality ratio. | liquid | neutral cellulase | 5-8 | 50-60 | - | X | X | X |
| UNIZIM LVM | Recommended for biopolishing. | | | | | | | | |
| UNIZIM TCL | The product is suitable for working in garment and fabric (piece) facilities (jet, overflow, etc, ...). | liquid | acid cellulase | 5-5.5 | 50-55 | - | X | X | - |
| UNIZIM CLB | Different concentrations available. | | | | | | | | |
| UNIZIM ULTRA 50 | | | | | | | | | |
| UNIZIM EFR-15 | Specifically decomposes the residual hydrogen peroxide present on tissue and in the treatment bath into no active oxygen and water. | liquid | catalase | 6-8 | 40-60 | X | X | X | - |
| UNIZIM LXO | Overdosing of the product can not affect the dyeing nor tissue. | | | | | | | | |
| UNIZIM ultra OX | Different packaging and concentrations. | | | | | | | | |
| UNIZIM XT-L | Keeps effectiveness over a broad pH range. | | | | | | | | |
| UNIZIM DSL/130 | No negative effects on fabric resistance thus improving quality. | liquid | alpha-amylase | 5-10 | 20-85 | X | X | X | - |
| UNIZIM H conc. | Wide range of working temperatures. Different concentrations available. | | | | | | | | |
| UNIZIM TVX | Enzyme alpha amilase. Keeps effectiveness over a broad pH range. | | | | | | | | |
| UNIZIM AMT | No negative effects on fabric resistance thus improving quality. | liquid | alpha-amylase | 5.5-7.5 | 40-80 | X | X | X | - |
| | Wide range of working temperatures. Different concentrations available. | | | | | | | | |
| UNIZIM PS-L | Alpha-amylase enzyme. Designed specifically for Pad-Steam. | liquid | alpha-amylase | 5-7.5 | 80-115 | X | X | - | - |

WASTEWATER TREATMENT

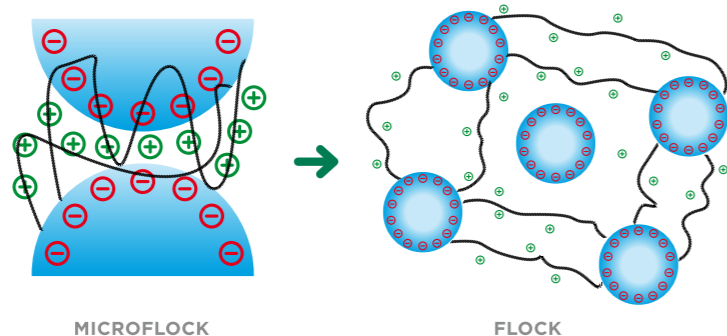
COMPLETE SOLUTIONS FOR WATER TREATMENT



The discharge of untreated wastewater produces negative environmental impacts in receiving watercourses, depending on the concentration of pollutants containing these waters.

Color Center offers a full range of Chemicals for Water Treatment, such as coagulants, flocculants (solid and emulsion polyelectrolytes), defoamers, odour suppressants, biological solutions, nutrients, ...

Coagulants destabilize a colloidal suspension. They can be defined like products with a high charge density which stick on the surface of the colloidal particles by neutralizing its charge, preventing repulsion between them and therefore, ensuring aggregation. Coagulants are usually metal salts or low molecular weight polymers.



The flocculants are high molecular weight polymers that are capable of trapping various colloidal particles in its polymer chain.

FLOCCULANTS AND COAGULANTS

| CENTERFLOC | | IONIC CHARACTER | MOLECULAR WEIGHT | VISCOSITY (25°C cPs) | CONCENTRATION (%) |
|--|---|-----------------|---|--|-------------------|
| TA | Decolourizing agent/coagulant. | cationic | low | < 1000 | 50 |
| MGC | Decolourizing agent/coagulant. | cationic | low | < 1000 | 40 |
| PA -30 PA -5010 PA -5009 | Polyamine based coagulant. | cationic | high (standard) medium very high | < 1000 | 50 |
| MAC -5016 MAC -5015 MAC -5013 MAC -5014 | Polyamine based coagulant. | cationic | very high (standard) medium very high ultra high | 8000-12000 500-1000 12000-15000 > 15000 | 40 |
| C GRANOS | Polyacrylamide, flocculant, granulated. | anionic | very high | N.A. | 90 min. |
| F-ANG | Reverse emulsion flocculant. | cationic | ultra high | 500-2000 | 50 |

DEFOAMERS

| | | pH | VISCOSITY (25°C cPs) | CONCENTRATION (%) |
|-------------------|---|------|----------------------|-------------------|
| COMPLEX EV | Antifoam based on vegetable esters, highly biodegradable. | 7-9 | ca. 1800 | 24 |
| COMPLEX 1646 | Silicone-based defoamer, highly effective. | 6-8 | ca. 1000 | 16 |
| ANTIESPUMANTE SAE | Mineral oil and organic waxes based defoamer. | 5-8* | ca. 500 | 100 |

(*): 10% in water solution.

BIOLOGICAL AND NUTRIENT SOLUTIONS

| | | pH | ACTIVITY |
|-----------------|--|------|---------------------------------------|
| CENTERFOOD XL | Biological nutrient. | 7 | C.O.D. (mg O ₂ /g) 500-600 |
| CENTER MICRO LF | Lyophilized non-pathogenic bacterial spores. | N.A. | n. col./g: 1x10 ⁹ |

SPECIALTIES

| | | pH |
|------------------|--|----------------------|
| CENTERFLOC F-RUM | Wastewater deodorizing. | 11-12 ⁽¹⁾ |
| AMPLEX BO-85 | Lyophilized non-pathogenic bacterial spores. | 11-12 ⁽²⁾ |
| AMPLEX DEOX | Disolved oxygen scavenger for boilers. | 5-6 ⁽³⁾ |
| AMPLEX RO-723 | Antifouling for reverse osmosis membranes. | 2-3 ⁽³⁾ |

(1): pH 10% · (2): pH 1% · (3): pH 100%



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