PRE-TREATMENT AND DYEING
FINISHING
ENZYMES
WASTEWATER TREATMENT
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.

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.
06 PRE-TREATMENT AND DYEING
08 Detergents and wetting agents
12 Sequestering agents & Peroxide Stabilizers
14 Optical brighteners
17 Antifoaming agents
18 Specific Auxiliaries
18 Fixing agents
19 Hydrophilic agents
19 Lubricants
19 Levelling agents
19 Dispersing agents & carriers
19 pH regulators
18 Redox products

20 FINISHING
22 Softeners
24 Silicones
28 Resins and cross-linking agents
32 Water and oil repellents
34 Flame-retardant agents
36 Anti-slip agents
37 Anti-static agents
38 Sanitizing agents
39 Microencapsulated and controlled release products

40 ENZYMES

44 WASTEWATER TREATMENT
45 Flocculants and Coagulants
Defoamers
Biological and nutrient solutions
Specialties
Color Center offers outstanding customer service for pretreating and dyeing all kinds 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 –, fastness, microscopic analysis, microbiological testing...).
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.

**Surfactants Structure & Properties**

In terms of ionicity there are 4 kinds of surfactants:

- Anionic
- Cationic
- Nonionic
- Amphoterics or Zwitterionic

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

**Wetting Agents**

<table>
<thead>
<tr>
<th>COMPLEX F-908</th>
<th>Nonionic wetting, deaerating, high concentration of general application.</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPLEX FD</td>
<td>Nonionic wetting, deaerating of general application.</td>
</tr>
<tr>
<td>COTEMOLL MR</td>
<td>Fast anionic wetting for preparation and dyeing of cotton fiber.</td>
</tr>
<tr>
<td>COTEMOLL SAS</td>
<td>Fast anionic wetting for preparation and reactive dye and vat to the continuous application.</td>
</tr>
<tr>
<td>COTEMOLL HC NUEVO</td>
<td>Wetting - lubricant for dyeing cotton.</td>
</tr>
<tr>
<td>COTEMOLL MGK</td>
<td>Wetting agent for mercerising and causticising processes.</td>
</tr>
<tr>
<td>COTEMOLL WET FL</td>
<td>Fluorinated wetting agent for coating pastes.</td>
</tr>
<tr>
<td>COMPLEX 2000 ULTRA</td>
<td>Deaerating and defoaming, wetting.</td>
</tr>
<tr>
<td>COTEMOLL MD</td>
<td>Wetting agent for finishes. It does not affect the properties of fluorocarbon.</td>
</tr>
</tbody>
</table>

**Wetting & Dyeing**

Some products offer excellent detergent capacity 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.

**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.

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Wetting agents 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.

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<table>
<thead>
<tr>
<th>DETERGENTS</th>
<th>APPLICATION</th>
<th>PROCESS</th>
<th>FIBER TYPE</th>
<th>PRODUCT PROP</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>PREPARATION</td>
<td>DYING</td>
<td>BLEACHING</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td>COTEMOLL TOB</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>PRODUCTO OSC</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>COTEMOLL PC ULTRA CONC</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>COTEMOLL DNS</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>COTEMOLL MFA</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
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<tr>
<td>COTEMOLL BSL NUEVO</td>
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<td>-</td>
<td>X</td>
<td>X</td>
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<tr>
<td>COTEMOLL E2</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>COTEMOLL D-750</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
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<tr>
<td>PRODUCTO PCB 202-S</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>COTEMOLL TS</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>AMPLEX HTA</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>COTEMOLL MWS</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>COTEMOLL CPP</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>COMPLEX EX</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>COTEMOLL RV</td>
<td>-</td>
<td>-</td>
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<td>-</td>
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<tr>
<td>COTEMOLL MFA</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>AMPLEX SDM</td>
<td>X</td>
<td>-</td>
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<tr>
<td>COTEMOLL 803-C</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>COTEMOLL NCONC</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

A: Anionic · N: Non ionic · ANF: Amphoteric · 0: No foam · 1: Low foam · 2: Medium foam · 3: High foam
Enhanced sustainability  
Predictable performance  
High thermal stability  
Chemical stability  
pH stability

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:

SEQUESTERING AGENTS  
& PEROXIDE STABILIZERS  
FOR OPTIMAL PROCESS PERFORMANCE

SEQUESTERING AGENTS

<table>
<thead>
<tr>
<th>AGENT</th>
<th>ACTION</th>
<th>SOLID CONTENT</th>
<th>APPLICATION PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMPLEX BC POLVO</td>
<td>EDTA-based sequestering agent. High chelating power for iron</td>
<td>85</td>
<td>- X - - X - - X</td>
</tr>
<tr>
<td>AMPLEX SET</td>
<td>Phosphonate sequestering &amp; dispersing agent for bleaching processes. High chelating power for iron.</td>
<td>16</td>
<td>- X - X X X - X</td>
</tr>
<tr>
<td>AMPLEX D-230</td>
<td>Phosphonate/acrylate sequestering &amp; dispersing agent for dyeing cellulosics. With ability to chelate iron.</td>
<td>25</td>
<td>X - - X X - X</td>
</tr>
<tr>
<td>AMPLEX CA-ECO</td>
<td>Sequestering &amp; dispersing agent for dyeing. With ability to chelate iron.</td>
<td>20</td>
<td>X - - - - - X</td>
</tr>
<tr>
<td>AMPLEX MS</td>
<td>Phosphonate sequestering agent for dyeing. With ability to chelate iron.</td>
<td>39</td>
<td>X X - X X - X</td>
</tr>
<tr>
<td>AMPLEX D6/NA</td>
<td>Phosphonate sequestering &amp; dispersing agent for the preparation and bleaching of goods. With ability to chelate iron.</td>
<td>28</td>
<td>- X - - X X - X</td>
</tr>
<tr>
<td>AMPLEX XEL</td>
<td>Sequestering agent for the demineralization of cellulosic fibers. Excellent chelating power for iron.</td>
<td>40</td>
<td>X X - - - - - X</td>
</tr>
<tr>
<td>AMPLEX BC-ECO</td>
<td>General application sequestering agent, phosphorus-free, readily biodegradable. High chelating power for iron.</td>
<td>34</td>
<td>X X - X X - X</td>
</tr>
<tr>
<td>AMPLEX RG A.C.</td>
<td>Phosphonate sequestering &amp; dispersing agent for general application. No demetalizing effect. With ability to chelate iron.</td>
<td>40</td>
<td>X X - X X X X</td>
</tr>
<tr>
<td>AMPLEX 106 A.C. NUEVO</td>
<td>Sequestering &amp; dispersing agent based on acrylic copolymer.</td>
<td>40</td>
<td>X - - - - - X</td>
</tr>
</tbody>
</table>

SOLID CONTENT %
0: Very low  · 1: Low  · 2: Medium  · 3: High

PEROXIDE STABILIZERS

<table>
<thead>
<tr>
<th>STABILIZADOR H2O2</th>
<th>Organic stabilizer and sequestering agent for iron in alkaline medium.</th>
<th>CONTINUOUS</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESTABILIZADOR VP</td>
<td>Organic silicate-free stabilizer.</td>
<td>X</td>
<td>20</td>
</tr>
<tr>
<td>ESTABILIZADOR VP CONC</td>
<td>Organic stabilizer of general application, silicate-free, recommended for pad-steam.</td>
<td>X</td>
<td>20</td>
</tr>
<tr>
<td>COMPLEX RNB</td>
<td>Silicate-based stabilizer for pad-batch application.</td>
<td>X</td>
<td>X 40</td>
</tr>
</tbody>
</table>
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...

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.

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

<table>
<thead>
<tr>
<th>OPTICOL BR LIQUIDO</th>
<th>FIBER AFFINITY SHADE</th>
<th>CONTINUOUS DISCONTINUOUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CELLULOSIC MEDIUM NEUTRAL</td>
<td>X X</td>
<td></td>
</tr>
</tbody>
</table>

### APPLICATION PROCESS

- **Continuity and Discontinuity**
  - X: Continuous
  - : Discontinuous

#### OPTICOL BU
- Very good stability in acid baths together with resin until pH 4.
- High lightfastness.
- High performance and sharpness. It is their right OBA for processes "Simply White".
- Effects of very bright white blue-violet hue. Good stability in peroxide bleaching baths so the reproducibility is improved. Thanks to its high performance and sharpness it is their right OBA for processes "Simply White".
- Provides high degrees of white, intense bluish shade. Good stability in peroxide bleaching baths. Suitable for automatic dispersing equipment.
- Provides high degrees of white, intense bluish shade. Good stability in peroxide bleaching baths. Suitable for automatic dispersing equipment.
- 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.
- Tinged optical brightener for polyamide and acetate fibers. Applicable by exhaustion and continuous processes.
- Tinged optical brightener for polyamide fibers. Application by exhaustion, stable in reducing baths.
- TOPICAL PA-T: Tinded optical brightener for polyester fibers. Applicable by exhaustion and continuous processes.
- TOPICAL PEB LIQUIDO: Optical brightener that provides high fastness. Highly recommended for application in peroxide bleaching bath when mixtures of PES/CO are handled.
- Optical brightener for exhaustion and continuous processes. Confers very bright whites with blue-violet shade.
- Bisbenzooxazol derivative for incorporation into plastic materials (especially polymers and synthetic resins thermoplastics). High thermal stability. Suitable for fiber extrusion processes. High lightfastness.

### ANTIFOAMING AGENTS

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

#### ANTIESPUMANTE S159
- Silicone antifoam of general application. With high alkali, electrolyte and shear stability.
- With high alkali, electrolyte and shear stability.
- Excellent stability in peroxide bleaching baths so the reproducibility is improved. Thanks to its high performance and sharpness it is their right OBA for processes "Simply White".
- Good stability in peroxide bleaching baths with peroxide or hydrosulfite. Suitable for automatic dispersing equipment.
- With high alkali, electrolyte and shear stability.
- With high alkali, electrolyte and shear stability.
- Excellent performance and sharpness. Configured for automatic dispersing equipment. Good lightfastness.
- Silicone antifoam of general application, highly effective.
- Silicone antifoam of general application with high alkali, electrolyte and shear stability.
- Silicone antifoam of general application. With high alkali, electrolyte and shear stability.
- Silicone antifoam of general application. With high alkali, electrolyte and shear stability.
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- Silicone antifoam of general application with high alkali, electrolyte and shear stability.
- Silicone antifoam of general application with high alkali, electrolyte and shear stability.
- Silicone antifoam of general application with high alkali, electrolyte and shear stability.

#### DEFEOAMING MECHANISM CRITICAL STEPS:

1. Diffusion to the liquid/gas interface
2. Entering the micelle structure
3. Spreading
4. Rupture

**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
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.

**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.

**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 the 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 acrylic fibers.
- ANTIRREDUCTOR IS 200: Anti-reducing agent stable in a wide range of pH (alkaline and acid).

**DISPERGENTS & CARRIERS**
- DISPERSANTE US/P: Levelling-dispersing agent for dispers dyes.
- COTEMOLL RNF: Detergent and dispersant for scouring and dyeing simultaneous.
- ESTEROL 626-R: Acid donor for polyamide dyeing.
- ESTEROL 313: Economic migrating agent for disperse dyes.
- ESTEROL BS-N LIQ.: Dispersant agent for disperse dyes.
- ESTEROL 1500 C: Carrier for dyeing polyester fabrics.
- ESTEROL BFA: Ecologic carrier for dyeing polyester 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).
- ESTEROL AC-P: Alkali donor for reactive dyeing.
- COMPLEX TA-5: Acid buffer for enzymatic blasting.

**REDOX PRODUCTS**
- AMPLEX 1001: Biodegradable sulfur-free reducing agent.
- 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.
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...

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.
FOR THE SOFTENING OF TEXTILE GOODS

ORGANIC SOFTENER DISPERSIONS
FOR THE SOFTENING OF TEXTILE GOODS

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

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

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

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

Fatty alkyl chain

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

Hand, softness, hydrophilicity and countless other properties can be adjusted depending on the softener and textile substrate type.
TEXTILE ENHANCERS: CUTTING-EDGE TECHNOLOGY IN SILICONE POLYMERS AND EMULSIONS

SILICONES

- Textile finishing
- Silicone polymers
- Emulsions

**Properties:***
- Wash-fastness
- Dry-clean
- Hydrophilicity
- Natural
- Non-yellowing
- Silky
- Polymer
- Shear-stable
- pH-stable
- Microstructure
- Design
- Elastic
- Soft
- Smooth

**Comparisons:**
- Hydrophilicity drop penetration time (seconds)
- Smooth hand
- Dry hand

**Comparison of Product Properties on Cotton Fabric**

**Designing the Right Polymer Microstructure to Get the Best Performance**
## SILICONES

<table>
<thead>
<tr>
<th></th>
<th>SOLID CONTENT (%)</th>
<th>IONICITY</th>
<th>PARTICLE SIZE</th>
<th>HANDLE</th>
<th>LOW YELLOWING</th>
<th>ELASTOMERITY</th>
<th>DURABILITY</th>
<th>LUBRICATION</th>
<th>pH STABILITY</th>
<th>SHEAR STABILITY</th>
<th>APPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILICONA CENTER DEP</td>
<td>40</td>
<td>non ionic</td>
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<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>X</td>
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<tr>
<td>SILICONA CENTER TH5 NUEVA</td>
<td>30</td>
<td>non ionic</td>
<td>macro</td>
<td>4</td>
<td>2-3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>X</td>
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<td>non ionic</td>
<td>macro</td>
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<td>2-3</td>
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<td>3</td>
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<td>3</td>
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<td>SILICONA CENTER 800</td>
<td>14 non ionic</td>
<td>meso</td>
<td>2-3</td>
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<td>1</td>
<td>2</td>
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<td>X</td>
</tr>
<tr>
<td>SILICONA CENTER ZM ULTRA CONC</td>
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<td>40 non ionic</td>
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<td>4</td>
<td>-</td>
<td>2-3</td>
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<td>meso</td>
<td>4+</td>
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<tr>
<td>COMPLEX RTN NUEVO</td>
<td>33 non ionic</td>
<td>micro</td>
<td>3</td>
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<td>4</td>
<td>3</td>
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<td>micro</td>
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<td>4</td>
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<td>3</td>
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<td>semi-micro</td>
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<td>nano</td>
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<td>3</td>
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<td>2-3</td>
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<td>4+</td>
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<tr>
<td>SILICONA CENTER SAN</td>
<td>30 cationic</td>
<td>micro</td>
<td>-</td>
<td>4</td>
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<td>3</td>
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<td>3</td>
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</tbody>
</table>
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.

**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

**RESINS & CROSS-LINKING AGENTS**

SUSTAINABLE POLYMERS THAT ENHANCE PERFORMANCE

POLYURETHANES-MELAMINES AND GLYOXALS-ACRYLIC EMULSIONS-CROSSLINKERS

---

**POLYURETHANES**

<table>
<thead>
<tr>
<th>COMPOSITION</th>
<th>SOLID CONTENT (%)</th>
<th>IONIC CHARACTER</th>
<th>NMP/NEP-FREE</th>
<th>VISCOSITY 25°C (mPas)</th>
<th>NODELLUS 1000 (mPas)</th>
<th>TEXTILE STRENGTH (mPa)</th>
<th>ELONGATION (%)</th>
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<td>Aliphatic-polyester</td>
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<td>500-1500</td>
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<td>RESINA CENTER APU</td>
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<td>A</td>
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<td>PRODUCTO ELS-50</td>
<td>Aliphatic-polyether</td>
<td>20</td>
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<td>Aliphatic-polyether</td>
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<td>N</td>
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<td>&lt; 200</td>
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</table>
RESINA CENTER CDL CONC. Crosslinking agent with low formaldehyde content for easy-care finish of cellulosic fibers and their blends with synthetics. Application by fouled.

RESINA CENTER OCN Crosslinking agent with low formaldehyde content for easy-care finish of cellulosic fibers and their blends with synthetics. Application by fouled.


PRODUCT V 100-B Waterbased resin for rigid finishes. Binder for carpet backing. Applicable by the padding, slip padding, doctor blade and foam application methods.

PRODUCTO P-110 Printing adhesive. Recommended for finishing polyester and polyamide ribbons to give sizing and sustained touch. Film-forming, biodegradable.

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

Melamine formaldelyde resin
- Modified N-hydroxyethyl methylol melamine
- Crosslinked with melamine formaldehyde resin
- Contains NO added to the resin
- WATERBORENBINDER FOR PIGMENT PRINTING, GOO D DRY-CLEAN F ASTNESS, SOFT AND COMFORTABLE F INISH.
- RECOMMENDED FOR PRINTING Lycra Fabrics Due to Its RESIDUAL T A C K. 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.

Melamine-formaldehyde resin
- Contains NO added to the resin
- WATERBORENBINDER FOR PIGMENT PRINTING, GOOD DRY-CLEAN FASTNESS, SOFT AND COMFORTABLE FINISH.
- RECOMMENDED FOR PRINTING Lycra Fabrics Due to Its RESIDUAL T A C K. 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.

Polyvinyl alcohol dispersion
- Forms a hard, hard and elastic handle, with good fastness to dry-cleaning and good wash-fastness. Outstanding mechanical stability recommended as a binder for non-woven. Can be used for finishing melamine and paper and packaging adhesives with high killing 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, geotextile.

POLYSYNYL ACETATE DISPERSION
- WATERBORENBINDER FOR PIGMENT PRINTING, GOOD DRY-CLEAN FASTNESS, SOFT AND COMFORTABLE FINISH.
- RECOMMENDED FOR PRINTING Lycra Fabrics Due to Its RESIDUAL T A C K. 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, VINYL & LATEX

PRODUCTO V 999
- WATERBORENBINDER FOR PIGMENT PRINTING, GOOD DRY-CLEAN FASTNESS, SOFT AND COMFORTABLE FINISH.
- RECOMMENDED FOR PRINTING Lycra Fabrics Due to Its RESIDUAL T A C K. 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.

PRODUCTO V 100-8
- WATERBORENBINDER FOR PIGMENT PRINTING, GOOD DRY-CLEAN FASTNESS, SOFT AND COMFORTABLE FINISH.
- RECOMMENDED FOR PRINTING Lycra Fabrics Due to Its RESIDUAL T A C K. 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.

PRODUCTO V 100-9
- WATERBORENBINDER FOR PIGMENT PRINTING, GOOD DRY-CLEAN FASTNESS, SOFT AND COMFORTABLE FINISH.
- RECOMMENDED FOR PRINTING Lycra Fabrics Due to Its RESIDUAL T A C K. 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.

PRODUCTO V 100-10
- WATERBORENBINDER FOR PIGMENT PRINTING, GOOD DRY-CLEAN FASTNESS, SOFT AND COMFORTABLE FINISH.
- RECOMMENDED FOR PRINTING Lycra Fabrics Due to Its RESIDUAL T A C K. 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.

PRODUCTO V 100-11
- WATERBORENBINDER FOR PIGMENT PRINTING, GOOD DRY-CLEAN FASTNESS, SOFT AND COMFORTABLE FINISH.
- RECOMMENDED FOR PRINTING Lycra Fabrics Due to Its RESIDUAL T A C K. 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.
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 (DWR), soil release, stain resistance.

We provide customer solutions through responsive product & technical support.

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

**APPLICATION OF COLOR CENTER’S DWR AND DWOR RANGE**

<table>
<thead>
<tr>
<th>FIBER TYPE</th>
<th>APPLICATION FIELD</th>
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<tbody>
<tr>
<td>AUTOMOTIVE</td>
<td>CAR COVERS UPHOLSTERY</td>
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<tr>
<td>FOOD</td>
<td>WRAPPING PAPERS - PAPER CUPS</td>
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<tr>
<td>HOME FURNISHING</td>
<td>CARPET - SHOWER - CURTAINS</td>
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<tr>
<td>NONWOVENS</td>
<td>MEDICAL WEAR</td>
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<tr>
<td>WEARING, APPAREL</td>
<td>SUIT - JACKET - DRESS</td>
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<tr>
<td>SPORTSWEAR</td>
<td>SKI WEAR - WIND BREAKERS</td>
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<tr>
<td>PROTECTIVE WEAR</td>
<td>GOLF APPAREL - HATS - CAPS</td>
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<tr>
<td>OUTDOOR LIFE</td>
<td>WORKWEAR UNIFORMS (SR)</td>
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<tr>
<td>LEATHER</td>
<td>ANIMOS - TENTS - BAGS - SHOES</td>
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<tr>
<td>CENTERGARD</td>
<td>LEATHER APPAREL - HOME FURNISHINGS</td>
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<tr>
<td>CENTERFOB</td>
<td>BAGS - SHOES</td>
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<tr>
<td>UNIPERL</td>
<td>CENTERFOB</td>
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**WATER AND OIL REPELLENTS EXPERTISE IN WATER AND OIL REPELLENCY**

**WATER REPPELLENTS FLUORINE FREE**

<table>
<thead>
<tr>
<th>FIBER TYPE</th>
<th>APPLICATION FIELD</th>
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<tbody>
<tr>
<td>CENTERGARD BWR CONC</td>
<td>Fluorocarbon CB, general application. High concentration.</td>
</tr>
<tr>
<td>CENTERGARD 50/BWR</td>
<td>Fluorocarbon CB, recommended for awning and synthetic fibers.</td>
</tr>
<tr>
<td>CENTERGARD 50/BWR 6</td>
<td>Fluorocarbon C6, recommended for awning and synthetic fibers.</td>
</tr>
<tr>
<td>CENTERGARD FR/1</td>
<td>Fluorocarbon CB, special use for awning. Maximum hydrophobicity.</td>
</tr>
<tr>
<td>CENTERGARD 24 BR</td>
<td>Fluorocarbon CB, special use for awning and synthetic fibers. High concentration.</td>
</tr>
<tr>
<td>CENTERGARD ATR</td>
<td>Fluorocarbon CB for cotton and blends.</td>
</tr>
<tr>
<td>CENTERGARD 423 retailers</td>
<td>Fluorocarbon C6, general application.</td>
</tr>
<tr>
<td>CENTERGARD RSX</td>
<td>Fluorocarbon C6, does not affect flame retardant properties (recommended for Trevira CS).</td>
</tr>
<tr>
<td>AMPLEX N</td>
<td>Fluorocarbon CB, nonionic, for general application.</td>
</tr>
<tr>
<td>CENTERGARD DGL</td>
<td>Fluorocarbon CB, recommended for Stain Release finishing.</td>
</tr>
<tr>
<td>CENTERGARD CT</td>
<td>Fluorocarbon C6 and 3D polymers, general application.</td>
</tr>
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</table>
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 interfire on one of those factors to break the cycle.

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.

Brominated Flame retardants, may do more HARM than good?

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.
**FINISHING**

**IGNIFUGANTE EXEOF3R**

**IGNIFUGANTE COW**

**IGNIFUGANTE TA**

**IGNIFUGANTE WK**
Zirconium salt derivative for permanent flame-proofing of wool fabrics. White crystalline solid

**IGNIFUGANTE 1T-6**
Blend of inorganic salts used for finishing of technical textiles and nonwoven. Dust-free.

**PRODUCT 1385**

**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.

**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.

**CENTERLOOK HP-PY7**
Foamable compound for obtaining fire-proof (back) coatings on textile substrates. Gives flexible coatings. Fullfills BS 5852 part 1 & 2.

**CENTERLOOK HP-TAG**

**RESINA CENTER LIG/3**

**IGNIFUGANTE MT**
Antimonia trioxide + 4% DIDP, dust-free. Synergistic agent for halogen flame-retardant formulations.

**IGNIFUGANTE ALH**
High purity hydrated aluminum hydroxide. Flame retardant for flame-proofing of polymers and waterborne resins.

**IGNIFUGANTE PV-500**
Triaryl phosphate ester. Recommended as a flame retardant additive for PVC, flexible polyurethanes, cellulose resins and synthetic rubber.

**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**

**ANTISTA-TICO 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 fabrics, yarns, threads, etc. of all kinds of fiber (flock, carded, 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 - Coatings
- Detergency - Textile finishing
- Wax & fatty emulsions - Paints & lacquers
- Plastisols - Industrial & domestic wastewater

Effective protection against:
- Mites - Algae
- Bacteria - Yeasts
- Fungi

- Industrial & domestic wastewater
- Paints & lacquers
- Textile finishing
- Coatings

- Fungi

- 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 dermatologically 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.

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
Synergetic 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 29-6 TC A.C.
Special polymer, antimicrobial for textiles, Cationic. It is compatible 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 DSP
Antimicrobial and fungicide for plastics whose active ingredient is 4,5-Dichloro-2-n-octyl-4-isothiazolin-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 of 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 VI-6
Heterocyclic derivative used as a special preservative 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 finishing.

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 fibre although its application is not recommended on pure polypropylene fibres.

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...
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.
<table>
<thead>
<tr>
<th>ENZYMES</th>
<th>APPEARANCE</th>
<th>FAMILY</th>
<th>pH</th>
<th>T(ºC)</th>
<th>CONTINUOUS</th>
<th>DISCONTINUOUS</th>
<th>GARMENT</th>
<th>DENIM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNIZIM PWO</strong></td>
<td>liquid</td>
<td>protease</td>
<td>10</td>
<td>40</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>UNILITE I-S</strong></td>
<td>powder</td>
<td>laccase</td>
<td>4-5</td>
<td>40-70</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>UNILITE DCF</strong></td>
<td>powder</td>
<td>peroxidase</td>
<td>4-5</td>
<td>25-35</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
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<tr>
<td><strong>UNIZIM BIO</strong></td>
<td>liquid</td>
<td>pectinase</td>
<td>6-9</td>
<td>50-60</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>UNIZIM COMBI</strong></td>
<td>liquid</td>
<td>combi</td>
<td>4-8</td>
<td>50-60</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td><strong>UNIZIM CRO EXTRA CONC</strong></td>
<td>powder</td>
<td>combi</td>
<td>6-5-75</td>
<td>40-55</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
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<tr>
<td><strong>UNIZIM CRO</strong></td>
<td>powder</td>
<td>combi</td>
<td>6-5-75</td>
<td>40-55</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
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<tr>
<td><strong>UNIZIM MPD</strong></td>
<td>liquid</td>
<td>combi</td>
<td>6-8</td>
<td>40-60</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td><strong>UNIZIM PTM</strong></td>
<td>powder</td>
<td>neutral cellulase</td>
<td>6-75</td>
<td>45-60</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
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<tr>
<td><strong>UNIZIM N-10/C</strong></td>
<td>powder</td>
<td>neutral cellulase</td>
<td>6-75</td>
<td>50-60</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>UNIZIM DR</strong></td>
<td>liquid</td>
<td>neutral cellulase</td>
<td>5-8</td>
<td>50-60</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
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<tr>
<td><strong>UNIZIM D-LT</strong></td>
<td>liquid</td>
<td>neutral cellulase</td>
<td>5-8</td>
<td>35-45</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>UNIZIM D-LT/2 nuevo</strong></td>
<td>liquid</td>
<td>neutral cellulase</td>
<td>5-9</td>
<td>35-45</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>UNIZIM CRO</strong></td>
<td>liquid</td>
<td>neutral cellulase</td>
<td>5-8</td>
<td>50-60</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>UNIZIM LVM</strong></td>
<td>liquid</td>
<td>acid cellulase</td>
<td>5-5</td>
<td>50-55</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td><strong>UNIZIM TCL</strong></td>
<td>liquid</td>
<td>acid cellulase</td>
<td>5-5</td>
<td>50-55</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**APPLICATION PROCESS**

- X: Yes
- -: No

<table>
<thead>
<tr>
<th>APPLICATION PROCESS</th>
<th>GARMENT</th>
<th>DENIM</th>
</tr>
</thead>
<tbody>
<tr>
<td>GARMENT DENIM</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>GARMENT</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>DENIM</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**ENZYMES**

- **UNIZIM**
  - **UNIZIM PWO**: Removes by enzymatic hydrolysis the lint and peeling which are caused by friction in WO fibers and mixtures thereof. Suitable for overflow, jet, etc.
  - **UNILITE I-S**: Eco-designed product, specifically formulated and buffered for Denim discoloration, does not affect the lycra.
  - **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.
  - **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.
  - **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.
  - **UNIZIM CRO**: Cellulase + alpha-amylase. Concentrated. Achieves excellent abrasion effect on the denim simultaneously to the preparation process, minimizes indigo backstaining.
  - **UNIZIM MPD**: Alpha-amylase + pectinase. Bioscouring and desizing in one step, without adding detergents, wetting agents, or pH regulators.
  - **UNIZIM PTM**: Neutral cellulase containing antibackstaining and buffering agents to pH 6.0-7.5. For use in jeans abrasion (stonewashing).
  - **UNIZIM N-10/C**: Powder formulation of a neutral cellulase together with buffer and antibackstaining. Stonewashing for denim.
  - **UNIZIM DR**: Used for biopolishing, it can be used before, during or after dyeing. Designed for biopolishing, it can be used before, during or after dyeing. Also for denim.
  - **UNIZIM D-LT**: Neutral cellulase containing antibackstaining. Recommended for biopolishing, it can be used before, during or after dyeing.
  - **UNIZIM CRO PLUS**: Recommended for biopolishing. The product is suitable for working in garment and fabric (piece) facilities (jet, overflow, etc.). Excellent price/quality ratio.
  - **UNIZIM LVM**: Recommended for biopolishing. The product is suitable for working in garment and fabric (piece) facilities (jet, overflow, etc. ...).
  - **UNIZIM TLC**: Different concentrations available.

- **TERMEXO Ultra 50**
  - **EPR-15**: Specifically decomposes the residual hydrogen peroxide present on tissue and in the treatment bath into no active oxygen and water.
  - **LXO**: Overdosing of the product can not affect the dyeing nor tissue. Different packaging and concentrations.
  - **ULTRA OX**: Keeps effectiveness over a broad pH range. No negative effects on fabric resistance thus improving quality. Wide range of working temperatures. Different concentrations available.
  - **XT-L**: Enzyme + detergent. Keeps effectiveness over a broad pH range. No negative effects on fabric resistance thus improving quality. Wide range of working temperatures. Different concentrations available.
  - **ULTRA AMT**: Alpha-amylase enzyme. Designed specifically for Pad-Steam.
  - **AQUAZYM PS-L**: Alpha-amylase enzyme. Designed specifically for Pad-Steam.
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, floculants (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 floculants are high molecular weight polymers that are capable of trapping various colloidal particles in its polymer chain.

### FLOCCULANTS AND COAGULANTS

<table>
<thead>
<tr>
<th>CENTERFLOC</th>
<th>IONIC CHARACTER</th>
<th>MOLECULAR WEIGHT</th>
<th>VISCOSITY (25°C cPs)</th>
<th>CONCENTRATION (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA</td>
<td>cationic</td>
<td>low</td>
<td>&lt; 1000</td>
<td>50</td>
</tr>
<tr>
<td>MGC</td>
<td>cationic</td>
<td>low</td>
<td>&lt; 1000</td>
<td>40</td>
</tr>
<tr>
<td>PA -30</td>
<td>cationic</td>
<td>high (standard)</td>
<td>8000-12000</td>
<td></td>
</tr>
<tr>
<td>PA -5010</td>
<td>cationic</td>
<td>medium</td>
<td>5000-1000</td>
<td></td>
</tr>
<tr>
<td>PA -5009</td>
<td>cationic</td>
<td>very high</td>
<td>&gt; 15000</td>
<td></td>
</tr>
<tr>
<td>MAC -5016</td>
<td>cationic</td>
<td>medium</td>
<td>1000-15000</td>
<td>40</td>
</tr>
<tr>
<td>MAC -5015</td>
<td>cationic</td>
<td>very high</td>
<td>5000-10000</td>
<td></td>
</tr>
<tr>
<td>MAC -5013</td>
<td>cationic</td>
<td>ultra high</td>
<td>&gt; 15000</td>
<td></td>
</tr>
<tr>
<td>MAC -5014</td>
<td>anionic</td>
<td>very high</td>
<td>N.A.</td>
<td>90 min.</td>
</tr>
<tr>
<td>C GRANOS</td>
<td>anionic</td>
<td>very high</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>F-ANG</td>
<td>cationic</td>
<td>ultra high</td>
<td>500-20000</td>
<td>50</td>
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### DEFOAMERS

<table>
<thead>
<tr>
<th>COMPLEX EV</th>
<th>pH: 7-9</th>
<th>VISCOSITY (25°C cPs): ca. 1800</th>
<th>CONCENTRATION (%): 24</th>
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</thead>
<tbody>
<tr>
<td>COMPLEX 1646</td>
<td>6-8</td>
<td>ca. 1000</td>
<td>16</td>
</tr>
<tr>
<td>ANTIESPUMANTE SAE</td>
<td>5-8*</td>
<td>ca. 500</td>
<td>100</td>
</tr>
</tbody>
</table>

(*) 10% in water solution.

### BIOLOGICAL AND NUTRIENT SOLUTIONS

<table>
<thead>
<tr>
<th>CENTERFOOD XL</th>
<th>pH: 7</th>
<th>ACTIVITY: C.O.D. (mg O₂/g) 500-600</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTER MICRO LF</td>
<td>N.A.</td>
<td>n. col./g: 1x10⁸</td>
</tr>
</tbody>
</table>

### SPECIALTIES

<table>
<thead>
<tr>
<th>CENTERFLOC F-RUM</th>
<th>pH: 11-12 (1)</th>
<th>APPLICATION: Wastewater deodorizing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMPLEX BO-85</td>
<td>pH: 11-12 (2)</td>
<td>APPLICATION: Lyophilized non-pathogenic bacterial spores.</td>
</tr>
<tr>
<td>AMPLEX DEOX</td>
<td>pH: 5-6 (3)</td>
<td>APPLICATION: Dissolved oxygen scavenger for boilers.</td>
</tr>
<tr>
<td>AMPLEX RO-723</td>
<td>pH: 2-3 (1)</td>
<td>APPLICATION: Antifouling for reverse osmosis membranes.</td>
</tr>
</tbody>
</table>

(1): pH 10% · (2): pH 1% · (3): pH 100%
Válido hasta el 31 de diciembre de 2018

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