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PRE-TREATMENT AND DYEING

FINISHING

ENZYMES

WASTEWATER TREATMENT





# 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.



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.

# 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



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WETTING +
 WASHING +
 SOAPING +
 SOAPING +
 BLEACHING +

· OXIDIZIN · FIXING

# 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...).

### **COLOR CENTER** Dyes & Chemical Products



- ·BUFFERING
- ·LEVELLING
- · DISPERSING

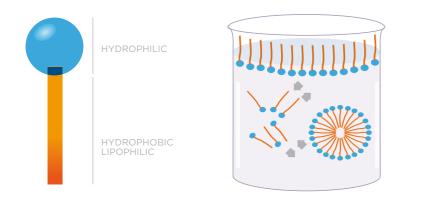
### PRE-TREATMENT AND DYEING

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# **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.

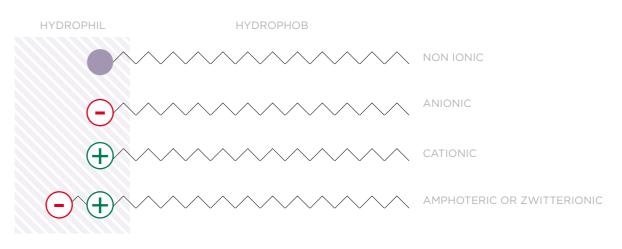
WETTING AGEN	ITS	ZO	ATION		(5)	
		PREPARATION	MERCERIZATION	DVEING	BLEACHING	FINISHING
COMPLEX F-908	Nonionic wetting, deaerating, high concentration of general application.	Х	-	Х	Х	X
COMPLEX FD	Nonionic wetting, deaerating of general application.	Х	-	Х	Х	Х
COTEMOLL MR	Fast anionic wetting for preparation and dyeing of cotton fiber.	Х	-	-	Х	-
COTEMOLL SAS	Fast anionic wetting for preparation and reactive dye and vat to the continuous application.	Х	-	Х	-	-
COTEMOLL HC NUEVO	Wetting - lubricant for dyeing cotton.	-	-	Х	-	-
COTEMOLL MGK	Wetting agent for mercerising and causticising processes.	-	Х	-	-	-
COTEMOLL WET FL	Fluorinated wetting agent for coating pastes.	-	-	-	-	Х
COMPLEX 2000 ULTRA	Deaerating and defoaming, wetting.	Х	-	Х	Х	-
COTEMOLL MD	Wetting agent for finishes. It does not affect the properties of fluorocarbon.	-	-	-	-	Х

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 inonicity there are 4 kinds of surfactants:

S



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.

CONTINUOUS	DISCONTINUOU	CELLULOSIC	WOOL	PES	PAN	PA	SOLID CONTENT %	IONIC CHARACTER	CONTAINS SILICONE	CONTAINS SOLVENT	DEAERATING PROPERTIES	FOAM
Х	Х	Х	Х	Х	Х	Х	93	Ν	-	Х	Х	0
Х	Х	Х	Х	Х	Х	Х	51	Ν	-	Х	Х	0
-	Х	Х	Х	-	-	-	27	А	-	-	-	3
Х	Х	Х	-	-	-	-	30	А	-	-	-	1
-	Х	Х	-	-	-	-	45	A/N	-	-	-	0
Х	-	Х	-	-	-	-	34	А	-	-	-	0
Х	Х	Х	Х	Х	-	Х	25	A	-	-	-	0
-	Х	Х	Х	Х	-	Х	20	A	Х	-	Х	0
Х	-	Х	Х	Х	Х	Х	3	А	-	-	-	0
				- I				atoria. Or Na faara	1. Low foor	2. Ma dium	foon 7.11	ich faara

### PRE-TREATMENT AND DYEING

DETERGENTS		APF	PLICATIO	N		PROCESS		FIBER	TYPE		PF SOLID		
		PREPARATION	DYEING	BLEACHING	CONTINUO	JS DISCONTINUOUS	CELLULOSIC	WOOL	PES	PAN PA		CHARACTER	FOAM
COTEMOLL TOB	Detergent for pretreatment, desizing and washing of cotton, synthetic fibers and blends.	Х	-	-	-	Х	Х	-	Х		30	A/N	2
PRODUCTO DSC	Detergent - wetting - sequestering for scouring and desizing of cotton Padding process.	Х	-	-	Х	-	Х	-	-		36	A/N	2
	Detergent - wetting concentrate for scouring and bleacning of cotton and blends.	Х	-	Х	-	Х	Х	-	-		85	Ν	1
COTEMOLL DNS	Detergent and wetting agent for the pretreat- ment of cotton and its polyester blends.	Х	-	Х	-	Х	-	-	-		38	N	1
COTEMOLL MFA	Special wetting-detergent agent with emulsifying properties for continuous pretreatment steps of cellulosic fibres and their blends with synthetics.	х	-	х	Х	-	х	-	-		80	A/N	1
COTEMOLL BSL NUEVO	<ul> <li>Multifunctional product (organic stabilizer, detergent, emulsifier and sequestrant).</li> <li>Good wetting and low foaming power.</li> </ul>	-	-	Х	-	х	X	-	-		22	A	1
COTEMOLL E2	Detergent - bleach activator with hydrogen peroxide.	-	-	Х	-	-	Х	-	-		30	Ν	-
COTEMOLL SIT	Emulsifier detergent of paraffins and silicones.	Х	-	-	Х	Х	Х	-	-	- X	30	ANF	3
COTEMOLL D-750	General purpose detergent with biodegradable solvents.	Х	-	-	-	Х	Х	-	-	- X	35	A/N	1
PRODUCTO PCB 202-S	Solvent detergent for pretreatment of all kind of fiber.	Х	-	-	X	X	Х	-	Х		60	N	1
COTEMOLL TS	Dispersing and accelerator of polyester dyeing diffusion.	X	-	-	-	-	Х	Х	Х	- X	100	A/N	1
AMPLEX HTA	Detergent - dispersant for simultaneous scouring and dyeing PES/CV.	-	Х	-	-	Х	-	-	Х		40	A/N	1
COTEMOLL MWS	Detergent - dispersant wich facilitates the removal and prevents deposits of oligomers during the dyeing process.	-	Х	-	-	Х	-	-	Х		25	A	2
COTEMOLL CWP	Detergent-dispersant antibackstaining in washing denim.	-	-	-	-	-	-	-	-		30	A/N	2
COTEMOLL PS LÍQUIDO		-	-	-	-	Х	-	Х	-		20	A	3
COTEMOLL NI	Detergent - wetting nonionic generally applicable to all types of fiber.	Х	-	Х	Х	Х	Х	Х	-	× -	85	Ν	3
COMPLEX EX	Detergent for pretreatment, desizing and dyeing of cotton, synthetic fibers and blends.	Х	Х	Х	Х	-	Х	Х	-		74	A	3
COTEMOLL RV	Detergent for soaping of prints polyamide.	-	Х	-	-	-	Х	-	-		27	N	2
COTEMOLL DC	Wetting, detergent and Special Degassing for coil.	X	Х	Х	-	Х	Х	-	-		40	A/N	0
COTEMOLL NFS	Wetting, detergent general application, low foam.	X	Х	Х	-	Х	Х	-	Х		30	N	0
DETERGENTE Q	Detergent for cleaning of cylinders, boxes and stamping dies.	-	-	-	-	-	-	-	-		30	А	-
AMPLEX SDM	Product for cleaning dyeing machinery.	-	-	-	-	X	-	-	-		25	A	-
COTEMOLL 803-C	Detergent for washing ready-made garment.	X	Х	-			Х	Х	Х		30	Ν	2
COTEMOLL MH40	Anionic detergent with wetting properties, emulsifier and re-moisturizes.	Х	-	-	Х	-	Х	-	-		25	A	3
COTEMOLL N CONC.	Anti-precipitant for dyeing acrylic fibers.	-	Х	-	-	-			_	×	14	N	3
							A: Anionic · N: N	on ionic · Al	NF: Ampho	oteric · 0: No f	oam · 1: Low foam · 2	: Medium foam · 3:	High foam

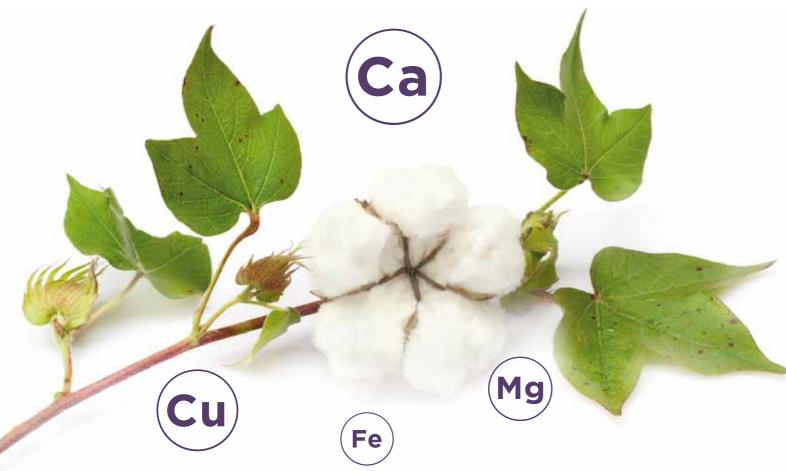
### **COLOR CENTER** Dyes & Chemical Products



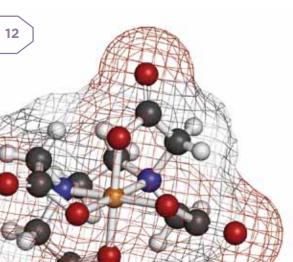
# SEQUESTERING AGENTS & PEROXIDE STABILIZERS FOR OPTIMAL PROCESS PERFORMANCE

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



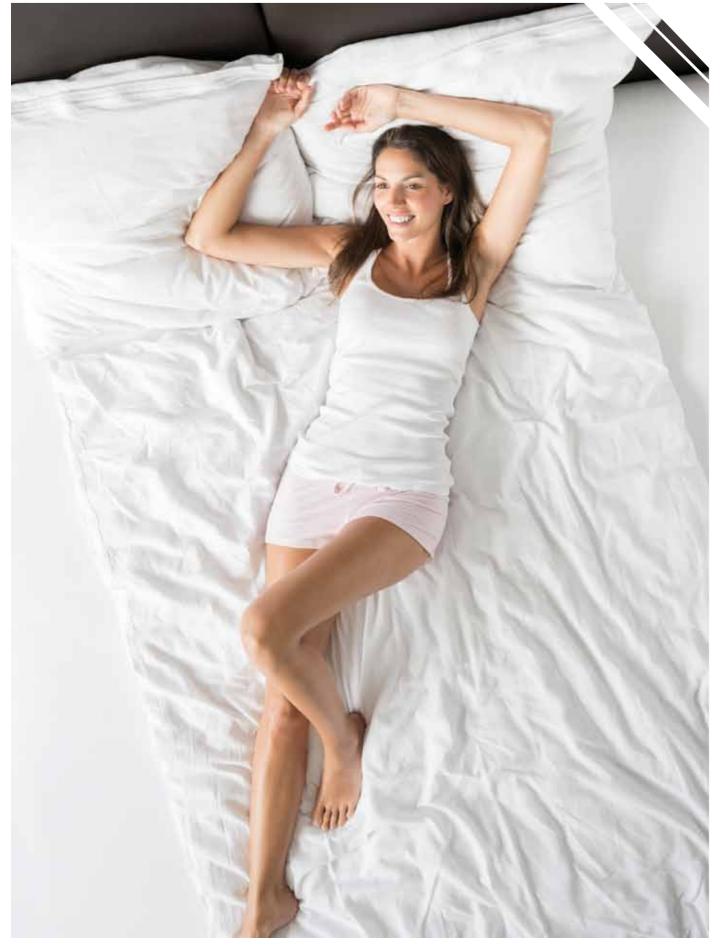
SEQUESTERING AGENTS					APP	LICAT	ION	PROC	ESS	
		SOLID CONTENT	ECOTOXICITY	DYEING	SCOURING	DEMINERALIZATION	DESIZING	BLEACHING	MERCERIZATION	SOAPING
AMPLEX BC POLVO	EDTA-based sequestering agent. High chelating power for iron.	85	3	-	Х	-	-	Х	-	-
AMPLEX SET	Phosphonate sequestering & dispersing agent for bleaching processes. High chelating power for iron.	16	1	-	Х	-	Х	Х	-	X
AMPLEX D-230	Phosphonate/acrylate sequestering & dispersing agent for dyeing cellulosics. With ability to chelate iron.	25	1	Х	-	-	Х	Х	-	×
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	Х	Х	-	Х	Х	-	X
AMPLEX D6/NA	Phosphonate sequestering & dispersing agent for the preparation and bleaching of goods. With ability to chelate iron.	28	1	-	X	-	-	X	-	×
AMPLEX XEL	Sequestering agent for the demineraliza- tion of cellulosic fibers. Excellent chelating power for iron.	40	1	-	Х	Х	-	-	-	-
AMPLEX BC-ECO	General application sequestering agent, phosphorus-free, readily biodegradable. High chelating power for iron.	34	0	Х	Х	-	Х	Х	-	×
AMPLEX RG A.C.	Phosphonate sequestering & dispersing agent for general application. No demetallizing effect. With ability to chelate iron.	40	1	Х	Х	-	Х	Х	Х	×
AMPLEX 106 A.C. NUEVO	Sequestering & dispersing agent based on	40	1	Х	-	-	-	-	-	X

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

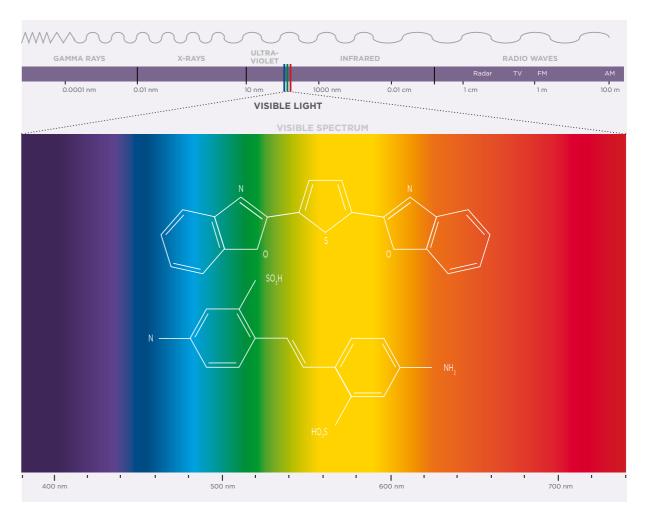
PRE-TREATMENT AND DYEING

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# 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.



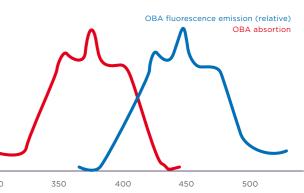
As a leading manufacturer and exporter of Optical Brighteners, **Color Center S.A**. offers a wide range of Optical Brightening Agents suitable to be applied on different substrates like Polyester, Cellulose, Nylon, Silk, Wool...

# FEATURES AND BENEFITS

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

OPTICAL DENSITY

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.



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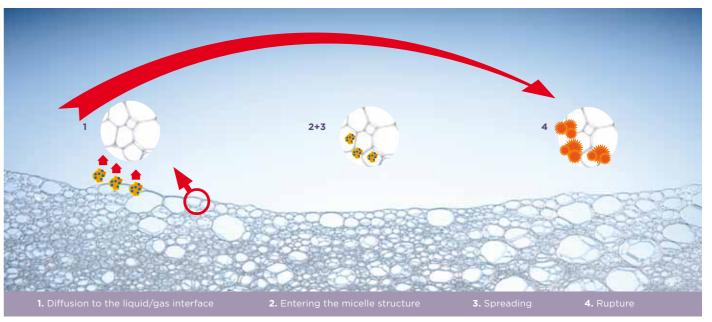
OPTICAL BRIG	HTENERS		APPLI	CATION P	ROCES	SS
		FIBER	AFFINITY	SHADE	CONTIN.	DISCONTIN.
OPTICOL BR	Very good stability in acid baths together with	CELLULOSIC	MEDIUM	NEUTRAL	Х	×
EIGOIDO	resin until pH=4,5. Good stability in the bleaching baths with		LOW	NEUTRAL	×	~
	peroxide or reducing agents.	CELLULOSIC	LOW	NEUTRAL	~	-
	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	-	Х
	Provides high degrees of white, intense bluish shade. Good stability in peroxide bleaching baths. Suitable for automatic dispersing equipment.	CELLULOSIC	HIGH	BLUE	Х	Х
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	-	Х
LÍQUIDO	Optical brightener for cellulosic fibers, polyam- ide, wool and silk. High affinity particularly suit- able for the exhaust process. Good stability in bleaching baths with peroxide or hydrosulfite.	CELLULOSIC	HIGH	NEUTRAL	-	Х
OPTICOL PB LÍQ. B NUEVO	Tinged optical brightener for polyamide fibers. Application by exhaustion, stable in reducing baths.	POLYAMIDE	HIGH	BLUE	-	Х
01 11002 20, 2	Outstanding light fastness: very suitable for swim- wear fabrics. Excellent stability to chlorite. Stable over a wide pH range. Excellent stability against reducing and oxidizing agents.	POLYAMIDE	HIGH	BLUE	Х	Х
	Tinged optical brightener for polyamide and acetate fibers. Applicable by exhaustion and continuous processes.	POLYAMIDE	HIGH	BLUE	Х	Х
90%	Tinged optical brightener (violet) for polyamide, wool, silk, cellulosic fibers and mixtures thereof. Applicable by exhaustion and continuous. Good lightfastness.	POLYAMIDE WOOL SILK CELLULOSIC	HIGH	VIOLET	Х	Х
	Tinged optical brightener for polyamide, wool, silk, cellulosic fibers. Applicable by exhaustion and continuous processes.	POLYAMIDE WOOL SILK CELLULOSIC	HIGH	NEUTRAL	Х	Х
	Tinged optical brightener for polyester fibers. Applicable by exhaustion and continuous processes.	POLYESTER	HIGH	BLUE	Х	Х
	Optical brightener that provides high fast- nesses. Highly recommended for application in peroxide bleaching bath when mixtures of PES/ CO are handled.	POLYESTER	HIGH	BLUE	Х	Х
	Optical brightener for polyester fibers and its mixtures. Applicable by exhaustion and continuous processes.	POLYESTER	HIGH	NEUTRAL	Х	Х
OPTICOL TJ-TM	Optical brightener for exhaustion and continuous processes. Confers very bright whites with blue-violet shade.	POLYESTER	HIGH	BLUE VIOLET	Х	Х
	Bisbenzooxazol derivative for incorporation into plastic materials (especially polymers and synthetic resins thermoplastics). High thermal stability (suitable for fiber extrusion processes). High lightfastness.	POLYPROPYLEN POLYSTYRENE VINYL-RESINS COATINGS VARNISHES	E 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:

- $\cdot$  High compatibility
- · No negative side effects
- · Long term efficiency
- · Good handling characteristics
- · Enhanced sustainability

ANTIFOAMING AGENTS	

ANTIFOAMING AG	GENTS		FI ECTROLITE	ACTIVE	
		SHEAR STABILITY	STABILITY	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	



### 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 pr
IGUALADOR CO	Levelling agent for cellulosic f
IGUALADOR ORT	Levelling agent for cellulosic f
ESTEROL G	Levelling agent for acid dyes.
ESTEROL SB NUEVO	Levelling agent for acid dyes.
ESTEROL WD	Levelling agent for wool dyes.
ESTEROL MG-32	Migrating agent for acrylic fib
ESTEROL RDA	Retarding agent for acrilyc fib
ANTIMIGRANTE IS 200	Antimigrating agent for conti

# DISPERSING AGENTS & CARRIERS

SPERSANTE 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.
STEROL 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

DISPERSANTE US

ESTEROL BS-N LI

AMPLEX TAF Buffer for disperse dyes. COTEMOLL DIS Alkaline buffer for scouring p ESTEROL 2095 Acid donor for polyamide dy ESTEROL F Acid donor for polyamide dy ESTERROL AC-P Alkali donor for reactive dyei COMPLEX TA-5 Acid buffer for enzimatic bla

### **REDOX PRODUCTS**

EX 1001 Biodegradable sulfur-free re	AMPLEX 1001
CONC Modified organic reducing a	RECDUCTOR R CONC
DX PTD Liquid reducing agent for re	REDOX PTD
OR 1130 Anti-reducing agent stable in	ANTIRREDUCTOR 1130
OR RD Anti-reducing agent stable	ANTIRREDUCTOR RD
R G LIQ Anti-reducing agent stable	ANTIRREDUCTOR G LIQ
RANOS Concentrated anti-reducing	ANTIRREDUCTOR G GRANOS



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 high acid liquors.

### HYDROPHILIC AGENTS



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

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fibers.									
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. With dyestuff affinity.									
. With anti-bars effect.									
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gent. Highly concentrated.
duction clearing of polyester fabrics.
a wide range of pH (alkaline and acid).
n acid pH.
n alkaline pH.
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)

 $\cdot$  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
- $\cdot$  Fire resistant
- · Dimension-stable
- Antimicrobial
- · Long-term durability....





### IGNIFUGANTE

### ROMSOFT SILICONA CENTE

### 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.

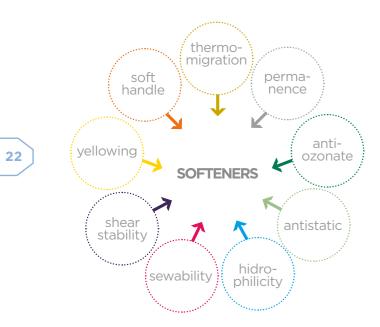




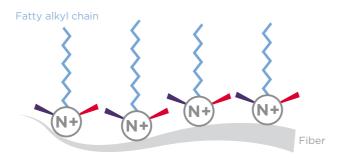
# SOFTENERS ORGANIC SOFTENER DISPERSIONS FOR THE SOFTENING OF TEXTILE GOODS

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.

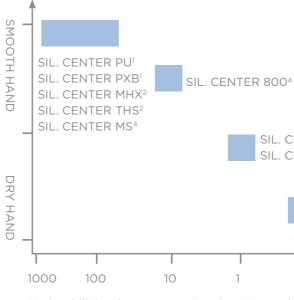
Hand, softness, hidrophillicity and countless other properties can be adjusted depending on the softener and textile substrate type.

SOFTEN				(cps)		- - - - - - - - 		•	• • •			tance		(sewability)	Ē		APPL		
		Solid content (%)	ph 10(%)	Viscosity 25²c (c	Ready to use	Concentrated	lonicity	Appearance	Hydrophobicity	Hydrophilicity	Handle	Low yellowing high heat resista	Durability	Lubrication (sewa	Thermomigratio improvement		Padding	Exhaustion	Coating
PRODUCTO R22	Oleic esterquat, easy handling at low temp., rapid dispersion lin cold water. Good softening & antistatic & rewetting properties. Readly biode- gradable. Highly substantive.	90	3 (5%)	<10000	-	Х	cationic	amber viscous liquid	-	3+	soft and fresh	2	3	-	-	-	Х	Х	_
ROMSOFT AQ/85		85	2,5 (5%)	soft paste	-	Х	cationic	soft paste	-	2+	soft and fresh	3	4	-	-	-	Х	Х	-
ROMSOFT AQ/90	Partially hydrogenated tallow ester- quat. Good softening & antistatic properties. Readly biodegradable. Highly substantive.	90	2,5 (5%)	paste	-	Х	cationic	white paste	-	2+	soft and fresh	3	4	-	-	-	Х	Х	-
SUAVIZANTE OE/2	Esterquat dispersion. Antistatic softener for all kind of fibres. Readly biodegradable. Also recommended for PES rising.	13	4,5	<100	Х	-	cationic	white disper- sion	-	2+	soft and fresh	3	4	-	-	-	Х	Х	-
SUAVIZANTE 1205-B NEW	Enhanced anti-yellowing & anti- ozonate (gas fadding) properties for denim. Good rewetting power.	15	4,5	<2000	Х	-	cationic	white disper- sion	-	3	soft and greasy	4	4	-	-	4	Х	Х	-
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	Х	-	cationic	white disper- sion	3	-	soft and fully	2	2	3	-	-	-	Х	-
ROMSOFT MG	Antistatic softener for all kind of fibres. Readly biodegradable. Synergistic mixture of esterquat and silicone. Recommended for open-end yarns.	10	4,5	<100	Х	-	cationic	white disper- sion	-	2+	soft and smooth	3	4	-	-	-	Х	Х	-
SUAVIZANTE VL-N	Preparation of wax and polysiloxane compound. Softening agent for textile of all fibre types, especially for PES fibres. In case of disperse dyeings, favourable behaviour with regard to thermomigration.	s 15	4	<100	Х	-	non ionic	white emulsion	3	-	soft and smooth	3	2	3	4	-	Х	-	-
SUAVIZANTE FF NUEVO	Softener for acrylic fiber, greasy handle. Facilitates the napping and emerizing operations improvig flex- ibility and smoothness.	13,5	4	<100	Х	-	cationic	white disper- sion	3	-	Soft and greasy	2	2	-	-	-	Х	Х	-
ROMSOFT CST	Dispersion of a fatty acid derivative. Low yellowing. Gives a very pleas- ant feel and good anti-static effect on natural & synthetic fibres and their mixtures.	21	4	<1000	Х	-	slightly cationic	white disper- sion	3	-	soft and full	4	2	3	-	-	Х	Х	-
ROMSOFT ANF	Dispersion of fatty acid derivative. Softener for all kind of fibers, specially suitable for white fabrics. Good compatibility with optical brightening agents, antistatic.	16	4,5 (100%)	<100	Х	-	non ionic	flakes	3	-	soft and full	4	2	3	4	-	Х	Х	-
ROMSOFT PES	Synergic mixture of fatty acid amides and elastomeric silicone. Recommended for PES fabrics.	21	5	-	Х	-	cationic	white disper- sion	3	-	warm, elasto- meric	2	3	3	3	-	Х	Х	-
UNIMIN P	Paraffin macro emulsion. Reduces notably the friction coefficients fiber - fiber and fiber - metal. Antistatic properties.	37	7	<100	Х	-	cationic	white disper- sion	3	-	fresh & smooth	3		4	3	-	Х	Х	-
ROMSOFT PB	Paraffin cationic macro-emulsion. Reduces notably the friction coeffi- cients fiber - fiber and fiber - metal. Low yelowing and thermomigration.	50	4	<1000	Х	Х	cationic	macro emulsion	3	-	fresh & pleasant	3	3	3	4	-	Х	Х	-
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	Х	-	cationic	macro emulsion	3	-	smooth & supple	3	3	4	3	-	Х	Х	-
EMULSION DE POLIETILENO PE/C	Polyethylene wax macro-emulsion. Reduces notably the friction coeffi- cients fiber - fiber and fiber - metal. Increases resistance to the abrasion and tear strenght.	37	8	<100	Х	Х	non ionic	macro emulsion	3	-	smooth & supple	3	2	4	3	-	Х	Х	-
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	Х	Х	non ionic	micro emulsion	3	-	smooth & supple	3	2	4	3	-	Х	Х	-
ROMSOFT SF	Mixture of fatty acid esters. Softener for sanfor.	30	5	<100	Х	-	non ionic	yellowish liquid	-	3	smooth	2	2	-	-	-	-	Х	-
ROMSOFT FLK PASTA	Mixture of fatty alcohols derivatives	38	5,5	paste	Х	Х	non ionic	white paste	-	2	cracant touch	3	2	3	-	-	-	Х	-
ROMSOFT KN	Mixture of fatty alcohols derivatives, antistatic and cracant softener. Pharma approved (sterile gauze). Do not modifies hidrophilicity.	45	8	paste	Х	Х	non ionic	white paste	-	2	cracant touch	3	2	3	-	-	-	Х	-

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

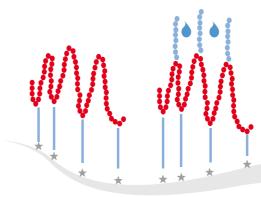


# COMPARISON OF PRODUCT PROPERTIES **ON COTTON FABRIC**

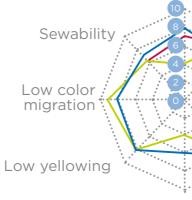


Hydrophilicity drop penetration time (seconds)

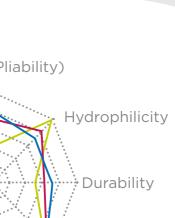
# DESIGNING THE RIGHT POLYMER MICROSTRUCTURE TO GET THE BEST PERFORMANCE



Softness (Pliability)

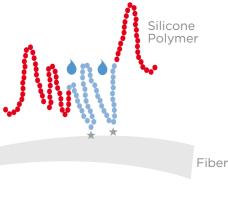


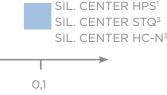
Elastomeric behaviour



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Stability





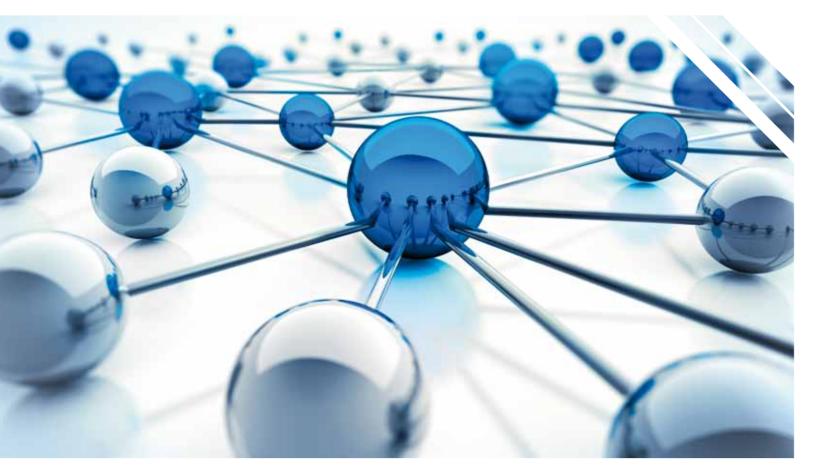
SIL. CENTER HC<sup>5</sup> SIL. CENTER PME-1810<sup>5</sup>

SILICONES					a 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4						-	APF	PLICATI Z	ON
		SOLID CONTENT (%)	IONICITY	PARTICLE SIZE	HANDLE	OW YELLOWING HIGH HEAT RESISTANCE	ELASTOMERICITY		LUBRICATION (SEWABILITY)	pH STABILITY	SHEAR STABILITY	PADDING	EXHAUSTION	COATING
	Silicone macro emulsion, color deepening agent.	40	non ionic	macro	-	-	-	3	-	2	2	Х	-	-
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	Х	-	Х
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	Х	-	Х
	Silicone semi-macro emulsion. Mois ture management properties.	14	non ionic	meso	2-3	2-3	3	4	3	2	2	Х	-	-
	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	Х	-	Х
	Silicone macro emulsion, high performance on PES/Cotton fabrics.	10	non ionic	macro	4	2-3	4	4	3	2	2	Х	-	Х
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.		non ionic	meso	4+	3	4+	4+	3	2	2	Х	-	Х
COMPLEX RTN NUEVO	Hybrid acrylic/polyurethane emulsion. Good crease recovery and pliability.	33	non ionic	micro	3	2	4	3	3	2	2	Х	-	-
COMPLEX RTN-FF	Hybrid acrylic/polyurethane emulsion. Good crease recovery and pliability.	30	non ionic	micro	3	2	4	3	3	2	2	Х	-	-
	Elastomeric silicone microemulsion. Very soft handle, good wash fastness.	21	non ionic	micro	2-3	2	2	3	2-3	3	3	Х	-	Х
	Elastomeric silicone microemulsion. Very soft handle, good wash fastness.	49	non ionic	micro	4	3	3	4	3	3	3	Х	-	Х
SILICONA CLIVILI	crease recovery and easy ironing. Slippery and drapable hand.			semi-micro		2-3	2	3	2	4	4	Х	Х	-
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	Х	Х	-
SILICONA CENTER PME-1810	Modified hydrophilic silicone semi-microemul- sion. Decreases metal-fiber and fiber friction coefficient. Increases fibre resistance.	20		semi-micro		2-3	3	2	4	2	2	Х	-	-
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	Х	Х	-
	Hydrophilic ultra-low yellowing silicone micro- emulsion. Recommended for white fabrics.	65	non ionic	micro	3	4+	3	3	3	3	3	Х	-	Х
	Elastomeric silicone microemulsion. Very soft handle, excellent shear stability, good wash fas ness. Specially dessigned for garment finishing		cationic	micro	-	4	2	3	4	3	3	Х	-	-



# 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

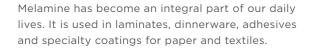
Optimal balance of aesthetics, comfort and durability. Key benefits:

- $\cdot$  Chemical and mechanical resistance
- $\cdot$  Outstanding handle and appearance for topcoats and base coats
- · Low-VOC



OLYUREI	HANES								
		COMPOSITION	SOLID CONTENT (%)	IONIC CHARACTER	NMP/NEP-FREE	VISCOSITY 25º C (mPas)	MODULUS 100 (mPa)	TEXTILE STRENGHT (mPa)	ELONGATION (%)
	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
	Soft, transparent, elastic film without residual tack. Foamable.	Aliphatic- polyester	40	A	-	500- 1500	1.6	12	800
	Soft, elastic and transparent film. Recommended as a binder for coatings and printing.	Aliphatic- polyester	50	A	-	< 500	2	30	850
CENTER	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
CENTER	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
CENTER	Nonionic, compatible with cationic and anionic products. It provides antipilling effect and improves abrasion fastness.	Aliphatic- polyether	30	Ν	yes	50-100	0.3	1.5	1000
CENTER	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	-	-	-
	Non film-forming polyurethane emulsion. In combination with silicone microemul- sions provides a fallen handle.	Aliphatic- polyether	20	Ν	-	< 700	-	-	-
CENTER	Polyurethane nano-emulsion for applica- tions 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	-	-	-
CENTER	Elastic polyurethane emulsion without residual tack. It provides a full and soft touch.	Aliphatic- polyether	30	Ν	-	< 200	-	8	600

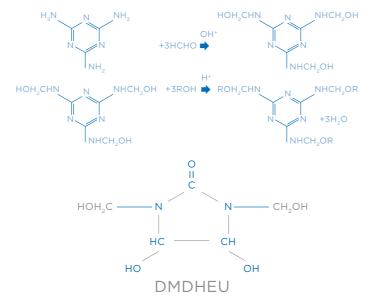
MELAMINE	S & GLYOXALS	COMPOSITION	SOLID CONTENT (%)	IONIC CHARACTER	PH (10%)	FORMAL DEHYDE CONTENT (%)
RESINA CENTER CDL CONC.	Crosslinking agent with low formaldehyde content for easy-care finish of cellulosic fibers and their blends with synthetics. Application by foulard.	Modified N- hydroxymethyldihydroxy- 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
	Crosslinking agent with ultra-low formaldehyde content for easy-care finish of cellulosic fibers and their blends with synthetics. Application by foulard. Fullfils 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
	Crosslinking agent with ultra-low formaldehyde con- tent for easy-care finish of cellulosic fibers and their blends with synthetics. Application by foulard. Suitable for children's clothes, fullfils ECO-TEX standard 100 for textiles in direct contact with the skin, Japan Law 112- 1973. Finish law SFS 4996/1986.	Dimethylol-hydroxyethyl- ene-urea	40	non ionic	5-6	Formol free
	Permanent finishing fixer. Calendering, goffering, pig- ment 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
	Low formaldehyde permanent finishing fixer. Calendering, goffering, pigment printing. Improves washfastness and abrasion. Combined use with water- repellant finishes, hydrostatic column. Semi-rigid fin- ishes. Foulard application on all types of fibers.	Melamine-formaldehyde resin	60	non ionic	9-10	< 0.4
	Permanent finishing fixer. Calendering, goffering, pig- ment printing. Improves washfastness and abrasion. Combined use with water-repellant finishes, hydro- static column. Rigid finishes. Foulard application on all types of fibers.	Melamine-formaldehyde resin	70	non ionic	8-9	<1
	Waterborne resin for rigid finishes. Binder for carpet backing. Aplicable by the padding, slop padding, doc- tor blade and foam application methods.	Polyvinyl acetate dispersion	50	non ionic	3-5	Formol free
	Printing adhesive. Recommended for finishing polyes- ter and polyamide ribbons to give sizing and sustained touch. Film-forming, biodegradable.	Polyvinyl alcohol dispersion	10	non ionic	7-7,5	Formol free



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		(%)	- - - -	· · ·		с К	25°C	Ű Z	
		COMP.	SOLID CONTENT (	APEO-FREE	Tg (ºC)	MTFF (°C)	IONIC CHARACTEI	VISCOSITY mPAS	SELF-CROSSLINKIN	pH 10%
RESINA CENTER AC-60	Waterborne acrylic resin. Gives soft, clear coatings, without residual tack. Recommneded for floking and coating. Low yellowing.	Acrylic	60	yes	0	0	Α <	1500	yes	6,5-7,5
RESINA CENTER AD	Waterborne acrylic resin. Imparts a supple, hard and elastic handle, with good fastness to dry-cleaning and good wash-fastness. Outstand- ing mechanical stability, recommended as a binder for non-woven.	Acrylic	45	yes	48	32	A	<200	yes -	4,5-7,5
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	Α <-	4000	no 4	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	-	Α <	200	yes 3	3,0-4,0
RESINA CENTER NUEVA	Waterborne acrylic-styrene copolymer. Givees flexible, glossy and clear coatings. Residual tack.	Acrylic styrene	50	yes	-15	0	Α <	1000	no I	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	Α <	1000	yes 5	5,0-6,0
	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	Α <	1000	yes 5	5,0-6,0
RESINA CENTER BC	Waterborne butadiene-styrene copolymer. Gives soft and elastic coatings. For pigment printing. Good bonding capacity.	Butadiene styrene	38	yes	-30	-	Α <	<300	yes 8	8,5-9,5
	Waterborne cationic acrylic copolymer. Gives clear and gloosy coatings, residual tack. Good adhesion, recommended for sizing, flocking and coating. It can also be appied by exhaustion for cationizing and sizing. Not compatible with anionic producs and thi.	Acrylic	46	yes	0	0	C ·	<150	yes 3	3,5-4,5
RESINA CENTER STK/100	Waterborne binder for pigment printing, good dry-clean fastness, soft and confortable handle.	Acrylic	35	yes	5	0	Α <	<300	yes	6,5-7,5
	Waterborne binder for pigment printing, recommended for the formu- lation of lacquers. Recommended for printing lycra fabrics due to its outstanding elasticity.	Acrylic styrene	35	yes	-	0	Α <	300	yes	5,5-7,5
RESINA CENTER STK/NF	Waterborne binder for pigment printing. Imparts dry-clean fastness, soft and confortable handle. Elastic and transparent film. Formaldehyde-free.		48	yes	-22	0	Α <	<500	yes .	7,0-8,0
	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	-	Α <	500	no	7,0-8,0

### С

CROSSLIN	KING AGENTS		LID NTENT (%)	ACTER	)SITY (cPs)		MMENDED CATION (ºC)
		COMP.	SOLID	IONIC CHARA	VISCO 25ºC ((	pH t.c	RECOMI APPLIC∕ TEMP. (º
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	Ν	< 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	С	< 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 formal- dehyde 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 formal- dehyde 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 formal- dehyde resins and reactants in general.	Inorganic salt	40	-	< 150	2.5-4.0	N.A.

**COLOR CENTER** Dyes & Chemical Products

# 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 RE	EPELLENTS FLUORINE FREE			FIBER	TYPE		PLIC. HOD
		IONIC CHARACTER	WASH FASTNESS	COTTON	SYNTHETIC	FOULARD	EXHAUSTION
UNIPERL Z	Water repellent for all type of fibres, zirconium salt paraffin based.	С	-	Х	Х	Х	Х
UNIPERL AL	Water repellent for all type of fibres, aluminium salt paraffin based.	С	-	Х	Х	Х	Х
UNIPERL CFF	Permanent water repellent for all type of fibres. Based on fatty derivatives. Extender for fluorocarbons.	С	Х	Х	Х	Х	-
PRODUCTO FMP	Permanent water repellent for all type of fibres. Based on synergistic mixture of fatty acid derivatives and paraffins.	С	Х	Х	X	X	-
CENTERGARD D-ECO	Permanent water repellent based on 3D polymer technology.	С	Х	X	Х	Х	-
CENTERFOB HN	Permanent water repellent based on reactive polydimethysiloxane.	Ν	Х	Х	Х	Х	-
CENTERFOB HC	Permanent water repellent based on reactive polydimethysiloxane.	С	Х	Х	Х	Х	-

### FLL

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

**COLOR CENTER** Dyes & Chemical Products





# 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 popagate a fire: the fuel, the air and the heat. It's enough to interfire on one of those factors to break the cycle.





# 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.

> 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.









FLAME RETARDANTS

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
IGNIFUGANTE COW	Reactive organic phosphorus compound. Permanent flame retardant for cellulosic fiber. Compatible with easy-care finishings.	Clear liquid
IGNIFUGANTE	Organic phosphorus compound. Flame retardant for PES. Permanent.	Viscous
TA	Compatible with WOR finishing (fluorocarbon resins).	liquid
IGNIFUGANTE WK	Zirconium salt derivative for permanent flame-proofing of wool fabrics.	White cristalline solid
IGNIFUGANTE T-6	Blend of inorganic salts used for finishing of technical textiles and nonwoven. Dust-free.	Clear, greenish liquid
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
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
CENTERLOOK	Foamable compound for obtaining fire-proof coatings on textile substrates.	Greyish viscous
PY8	Gives flexible coatings with a leather-like handle. For curtains and black outs.	dispersion
CENTERLOOK	Foamable compound for obtaining fire-proof (back) coatings on textile sub-	Greyish viscous
HF-PY7	strates. Gives flexible coatings. Fullfils BS 5852 part 1 & 2.	dispersion
CENTERLOOK	Compound for obtaining fire-proof (back) coatings on textile substrates.	Greyish viscous
HF-TAG	Gives flexible coatings . Fullfils BS 5852 part 1 & 2.	dispersion
RESINA	Fire-proof resin for back-coating of hupholstery fabrics.	White
CENTER LIG/3	Gives elastic and soft back-coatings.	paste
IGNIFUGANTE	Antimonium trioxide + 4% DIDP, dust-free.	White
MT	Synergistic agent for halogen flame-retardant formulations.	powder
IGNIFUGANTE	High purity hydrated aluminium hydroxide.	White
ALH	Flame retardant for flame-proofing of polymers and waterborne resins.	powder
IGNIFUGANTE PV-500	Triaryl phosphate ester. Recommended as a flame retardant additive for PVC, flexible polyurethanes, cellulose resins and synthetic rubber.	Clear liquid

# **ANTI-SLIP AGENTS**



- AMPLEX Colloidal silica dispersion. Anti-slip agent for finishing applications. Anionic, can SIL-AN be used in combination with resins, softeners, fluorochemicals and majority of finishing auxiliaries. Anyway, preliminary trials are always recommended.
- AMPLEX Cationic colloidal silica dispersion. It is an aqueous dispersion of a polymer F-30 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.

		Ш												
READY TO USE	CONCENTRATED FR (only used as FR additive in formulations)	HALOGEN & ANTIMONY-FREE	PH (100%)	WATER SOLUBILITY	DURABLE	NON DURABLE	SOAKING RESISTANT	DRY CLEANING RESISTANT	TEMPERATURE SENSITIVE	PADDING	EXHAUSTION	COATING	FOAMING	SPRAYING
Х	-	Х	5	dispersable	Х	-	-	-	-	-	Х	-	-	-
Х	-	Х	4,5	soluble	Х	-	-	Х	X	Х	-	-	-	-
Х	-	Х	3	soluble	-	-	Х	Х	-	Х	-	-	-	-
Х	-	Х	4 (10%)	15,5 g/l	Х	-	-	-	X	-	X	-	-	-
X	-	Х	7	soluble	-	Х	-	X	Х	Х	-	-	×	Х
Х	-	-	6	soluble	-	Х	-	Х	Х	Х	-	-	-	-
Х	-	×	7	soluble	-	-	Х	Х	Х	х	-	-	-	-
Х	-		9 (10%)	dispersible	Х	-	-	-	-	-	-	-	Х	-
Х	-	Х	9 (10%)	dispersible	Х	-	X	X	Х	-	-	-	Х	-
Х	-	Х		dispersible		-	Х	Х	Х	-	-	Х	-	-
Х	-	Х		dispersible		-	-	-	-	-	-	X	-	-
-	Х		-	not soluble	-	-	-	-	-	-	-	Х	Х	-
-	Х	Х	-	not soluble	-	-	-	-	-	-	-	Х	Х	-
-	Х	Х	-	not soluble	-	-	-	-	-	-	-	Х	Х	-

### ANTI-STATIC AGENTS



- NUEVO any kind of fiber (flock, cable, piece). Is stable to hard water, electrolytes and acids under standard concentrations.
- ANTIESTA- Non ionic fatty acid derivative. Emulsifier and non ionic detergent with dispersing and antistatic TICO properties for synthetic fibers. Very good lubricant effect, reduces the metal-fiber friction ratio and S-100 facilitates the napping and emerizing operations improving flexibility and smoothness. Doesn't modify the shade of dyes.
- ANTIESTA- Anionic fatty acid derivative. Antistatic for synthetic fibers. Gives high antistatic effect for all kind of TICO synthetic fibers, particularly polyester. Doesn't impair thermomigration and rubber fastness. Doesn't P-552 modify the shade of dyes and whiteness.

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ANTISTA- Cationic fatty acid derivative. Anti static agent for cellulose and synthetic fibers. High antistatic effect TICO H on acrylic, cellulose and polyester fibers. Application by immersion, spray, exhaustion or padding onto

# 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

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- · Coatings · Textile finishing
- · Industrial & domestic wastewater
- · Paints & lacquers
- Mites · Algae Bacteria Yeasts Fungi

Effective protection against:

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 com- pounds. 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 pyretroids. 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 tex- tiles, 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 fragances 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!!!!

- · 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 CONTRO

CENTERFINISH OND	Fatty acid derivate in an aqueous solution. Stable in alkaline conditions, for acidic cno
CENTERFINISH RMF	White dispersion of an organic complex. A fabric. Can be applied on all kind of fibers blends.
CENTERFINISH AM	Self-emulsifying concentrate. Nonionic. Im Based on permethrin. Provides resistance especially in carpets and rugs.
CENTERFINISH DCI NUEVO	Special product for the anti-stress finishing Nonionic. Renders the treatd fabrics with a providing a feeling of natural wellness. Rec
CENTERFIN- ISH ALV	Synergistic blend of natural extracts. Slight providing to the finished fabric moisturizin
CENTERFINISH AR (generic name)	Microcapsules dispersion containing a vari the fabric different kinds of frangances like Lavender, Red Berry, Lemon, Jasmine, Pea- coating or printing process.
CENTERFINISH CDV	Microcapsules with a low melting point par leases heat according to body requierement temperature.
CENTERFINISH GINSENG	Microcapsules based on the concept of ar active ingredients. Confers energizing and

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

OLLED RELEASE PRODUCTS 🤜	Ń
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. Odour killer, to be applied on all kind of surfaces. ditions previous trials are recomended. Anionic. Provides mosquit repellence to the treated or garment, especially on cotton, polyester and its parts insect repellence on wool and its mixtures. to moths to a value of 3 as "Wools of New Zealand", ng of fabrics, based on Tourmaline (particle size: 3µm). anti-stress properties, also activates negative ions thus commended for synthetic fibres. ntly cationic. Contains Chitosan and Aloe Vera thus ng and hydrating properties. iety of perfumes upon customer request, gives to e: Vanilla, Strawberry, Orange, Apple, Mint, Rose, ach, etc. Can be applied by exhaustion, padding, araffin. Thanks to PCM technology, absobrs or reents. Therefore it helps to keep a comfortable body romatherapy, contains ginseng extract among other d anti-stress properties to treated fabrics.

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More scenting agents available.



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.

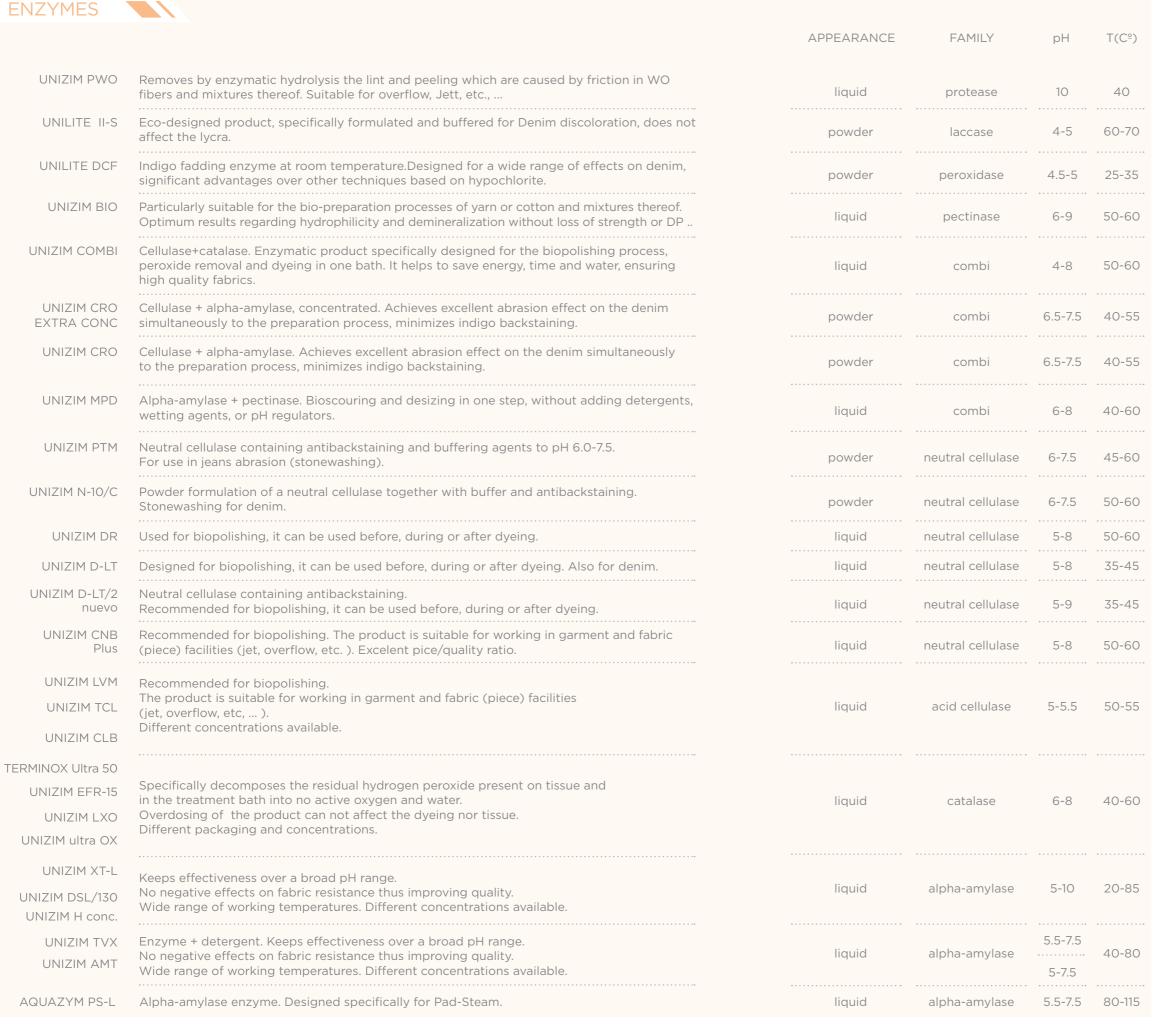
Enzymes are biologically active proteins which are able to catalyze biochemical reactions. Like all other proteins, enzymes are made of amino acids. Each enzyme is made of between a hundred and upwards of a million amino acids linked by chemical bonds in a specific sequence that determines 3D folding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

# **ENZYMES 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.

**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.



### **COLOR CENTER** Dyes & Chemical Products

# APPLICATION PROCESS CONTINOUS DISCONTINOUS GARMENT DENIM Х

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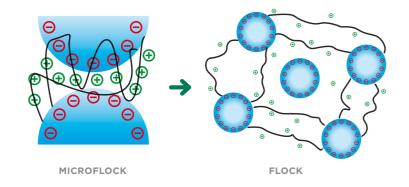
# **WASTEWATER** TREATMENT COMPLETE SOLUTIONS FOR WATER TREATMENT



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.

TA	Decolourizing agent/coagulant.
MGC	Decolourizing agent/coagulant.
A -30 -5010 -5009	Polyamine based coagulant.
-5016 -5015 -5013 -5014	Polyamine based coagulant.
ANOS	Polyacrylamide, floculant, granulated.
-ANG	Reverse emulsion flocculant.

CCULANTS	S AND COAGULANTS				- - - -		ZO
CENTERFLOC		IONIC		MOLECUI WEIGH	*	VISCOSITY (25°C cPs)	CONCENTRATION (%)
TA	Decolourizing agent/coagulant.	cationic		low		< 1000	50
MGC	Decolourizing agent/coagulant.	cationic		low		< 1000	40
PA -30				high (stand	hard)		
PA -5010 PA -5009	Polyamine based coagulant.	cationic		mediun very hig	n	< 1000	50
MAC -5016 MAC -5015 MAC -5013 MAC -5014	Polyamine based coagulant.	cationic		mediun	n Ih	8000-12000 500-1000 12000-15000 > 15000	 40
C GRANOS	Polyacrylamide, floculant, granulated.	anionic		very hig	h	N.A.	90 min.
F-ANG	Reverse emulsion flocculant.	cationic		ultra hig	Ih	500-2000	50
DAMERS			рН	VISCOSI (25°C cF		CONCENT (%	
COMPLEX EV	Antifoam based on vegetable ester highly biodegradable.	S,	7-9	ca. 1800	)	24	1
OMPLEX 1646	Silicone-based defoamer, highly eff	ective.	6-8	ca. 1000	) )	16	5
IESPUMANTE SAE	Mineral oil and organic waxes based defoamer.	d 5	5-8*	ca. 500	)	10	0
					(*): 10%	6 in water solutior	۱.
OGICAL A	ND NUTRIENT SOLUTIC						
				рН		ACTIVITY	
TERFOOD XL	Biological nutrient.			7		D. (mg 0 <sub>2</sub> /g) 500-600	
ER MICRO LF	Lyophilized non-pathogenic bacteri	ial spores.		N.A.		col./g: 1x10°	
CIALTIES				рН			
CENTERFLOC F-RUM	Wastewater deodorizing.			11-12(1)			
1PLEX BO-85	Lyophilized non-pathogenic bacteri	ial spores.		11-12 <sup>(2)</sup>			
MPLEX DEOX	Disolved oxygen scavenger for boil	ers.		5-6 <sup>(3)</sup>			
PLEX RO-723	Antifouling for reverse osmosis mer	mbranes.		2-3(3)	(1): pH	10% · (2): pH 1% ·	(3): pH 100%

FLOCCULANTS	S AND COAGULANTS			· · ·	NOI
CENTERFLOC		IONIC CHARACTER	MOLECULAR WEIGHT	VISCOSITY (25ºC 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 (standarc medium very high ultra high	500-1000	. 40
C GRANOS	Polyacrylamide, floculant, granulated.	anionic	very high	N.A.	90 min.
F-ANG	Reverse emulsion flocculant.	cationic	ultra high	500-2000	50
DEFOAMERS		рН	VISCOSITY (25°C cPs)	CONCENT (%)	
COMPLEX EV	Antifoam based on vegetable este highly biodegradable.	ers, 7-9	ca. 1800	24	
COMPLEX 1646	Silicone-based defoamer, highly e	ffective. 6-8	ca. 1000	16	
ANTIESPUMANTE SAE	Mineral oil and organic waxes base defoamer.	ed 5-8*	ca. 500	100	)
			(*): 10	% in water solution.	
BIOLOGICAL A	ND NUTRIENT SOLUTI				
			рН	ACTIVITY	
CENTERFOOD XL	Biological nutrient.		7 C.C	).D. (mg 0 <sub>2</sub> /g) 500-600	
CENTER MICRO LF	Lyophilized non-pathogenic bacte	erial spores.		col./g: 1x10º	
SPECIALTIES			рН		
CENTERFLOC F-RUM	Wastewater deodorizing.		11-12(1)		
AMPLEX BO-85	Lyophilized non-pathogenic bacte		11-12 <sup>(2)</sup>		
AMPLEX DEOX	Disolved oxygen scavenger for bo		5-6 <sup>(3)</sup>		
AMPLEX RO-723	Antifouling for reverse osmosis me	embranes.	2-3 <sup>(3)</sup> (1): pł	Η 10% · (2): pH 1% · (	3): pH 100%

# COLOR CENTER TECHNICAL DEPARTMENT R&D





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