

From Fiber to Finish: Complete Chemistry For Denim



The Seydel Companies, Inc. • 244 John B. Brooks Road, Pendergrass, Georgia, 30567 U.S.A. • www.seydel.com

The Seydel Companies Complete Chemistry for Denim includes products for every stage of denim manufacturing. These products are designed to provide superior results during the application stage while improving performance and quality throughout the entire production process.

SIZING:

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| Seyco Size PCS | This product was made especially for a large multi-national denim manufacturer to size their novelty and hard to weave multiple ends, multiple twists, Amsler ring spun yarns. The product is an acid modified corn starch with a blend of multiple viscosities for enhanced encapsulation. |
| Seyco Size MC-3CZ | An organic blend designed for specialty denim yarns. Seyco Size MC-3CZ is a blend of our new organic size, replacing polyvinyl alcohol, along with a special blend of 30-40 fluidity acid modified starches. This size is being used on very fine indigo dyed yarns 20/1 to 60/1 normally at 8% to 8.5% dry solids with 12% on the weight of the size of Seyco Lubebond as binder plus wax. |
| Seyco Size EZ-R | A new generation organic size that totally replaces polyvinyl alcohol. The product has 95% the adhesion of straight polyvinyl alcohol, the size film looks like polyvinyl alcohol, the size strength is 95% the strength of polyvinyl alcohol. The product is organic in nature and is very easy to remove due to the excellent solubility. This product can be used on specialty denim yarns or any yarns with excellent results and no adverse effects in finishing or dyeing of twills or other textiles. Usage is on 40/1 to 60/1 ring spun indigo yarns at 8% dry solids to 9% dry solids with 12% on the weight of the size with Seyco Lubebond. |
| Seyco Lubebond | A binder and wax, easily removable, with a low melting point 44-45°C to reduce chemicals and water in subsequent garment wet processing. The product has reduced stop levels in weaving by a minimum of 25% in every mill we supply, some denim mills by as much as 40%. Normal usage is 12% Seyco Lubebond on weight of the warp size. It can be used with starches and polyvinyl alcohol based warp size mixes as a 1 piece binder and wax with excellent results. |

BEAMING AID:

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| Seyco Finish PSA | A 100% organic based beaming aid for cable or rope indigo dyeing machines to reduce the fiber-to-fiber or fiber-to-metal friction at higher beaming efficiencies and at less cost than traditional polyethylene or cationic based products traditionally used. The product is very cost effective and has increased beaming by as much as 30% for experienced beaming operators. Seyco Finish PSA is a nonionic, 38% solids product. |
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CABLE DYEING OF INDIGO:

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| Seyco Wetter WS-2 Conc | An 80% active nonionic wetting and scouring agent that is stable to hard water and provides consistent wetting under extreme conditions. The product is excellent for areas that experience variations in the hardness or quality of the water. The product gives a much more consistent clean base so the dyed shades are uniformly consistent and the dye solubility is greatly improved. Normal usage is 7-12 g/l depending on the water and the hardness of the cotton. |
| Seyco Quest FES Conc | A polymeric type sequestrant active on calcium and magnesium salts at high pH levels as well as copper, iron and all metals at high pH levels. It provides the best of an organic and inorganic type sequestrant in one product. |
| Seyco Lube DP-Conc | A polymeric nonionic lubricant/solubilizing agent that reduces the surface tension of water and enhances the wet pick-up of warp sizes, scours, softeners and other products in the water. On indigo dyeing it promotes better and more consistent dyeing with better fastness. Normal usage is 2.5 g/l in a preparation mix or size mix. |

DENIM FINISHING:

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| Seyco Lube BAM Conc | A one piece nonionic, wetting/re-wetting agent, high density polyethylene softener, sanforizing lubricant and anti-sticking compound in a single product. Seyco Lube BAM Conc is versatile and can be used on 4 oz to 15.5 oz denim fabrics. The product gives an excellent hand to any denim fabric, eliminates the possibility of needle cutting, prevents corrugation marks from the sanforizer, and keeps the fabric and machinery cleaner for maximum production. Normal usage is 8-10 g/l. We recommend mixing at 55-60°C while maintaining the same temperature in the finish box. |
| Seyco Finish ESA Base | A concentrated, easy to prepare hand builder that provides a smoother, flatter denim fabric while maintaining excellent shrinkage and elongation properties on denim. When Seyco Finish ESA Base is used with Seyco Lube BAM Conc, both provide excellent dimensional fabric stability and a cleaner, more consistent shade with little to no back staining. Normal usage is 10-12 g/l on normal denim fabrics. On denim flat finished fabrics a higher concentration may be needed as the size is totally removed in the causticizing or mercerizing process. Typical use is 20-25 g/l depending on the fabric weight and customer stiffness requirements. |
| Seyco Sperse 801 | A nonionic, water soluble, polyester based, anti-redeposition aid which prevents the cross staining of indigo dye, sulfur dye or pigment dye. Seyco Sperse 801 keeps the filling yarns cleaner and shades more consistent on the pad steamer for a denim flat finished fabric, and in denim finishing on synthetic/cotton or Lycra/cotton styles. Typical usage in a finish formula is 5-10 g/l depending on the fabric shade and construction. Typically 5 g/l is sufficient. |

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DENIM FINISHING (Continued):

As an example, a typical denim mix preparation:

- Fill tank 1/3 full of 75 to 80°C water
- Under high speed agitation, add 10 g/l Seyco Finish ESA Base and mix for 15 minutes
- Finish filling the tank with cold water and add 10 g/l of Seyco Lube BAM Conc as the tank fills
- The final temperature of the mix should be approximately 55-60°C
- For synthetic/cotton denim fabrics add 5 g/l of Seyco Sperse 801 while adding the Seyco Lube BAM Conc

SPECIALTY PRODUCTS:

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| Seyco Fix DEM | A cationic fixative designed especially for indigo dyed yarns or fabrics. Seyco Fix DEM provides excellent color retention through many home laundries. It can be applied in slashing or in denim finishing. Normal usage will vary depending on the home laundry requirements and depth of shade. For wash fastness for up to 30 home launderings on a very dark indigo, we recommend 60 g/l, dry-on-dry yarn or fabric. On a typical or mid-depth shade 30 g/l, on a lighter shade 20 g/l is adequate. |
| Seyco Fin CCU | A self-crosslinking, soft, polyurethane resin. Seyco Fin CCU is applied by padding, coating or spraying on fabrics or garments to give a unique hand and effect. It will also reduce abrasion resistance and improve fabric smoothness. Highly durable finish when cured. |
| Seyco Fin II | A self-crosslinking, soft, acrylic that can be applied by padding, spraying or coating to fabrics or garments. Seyco Fin II reduces abrasion resistance, provides a smoother fabric, and gives a slight sheen and unique hand. |
| Seyco Soft LM-5 Conc | A concentrated, nonionic, micro-emulsion silicone softener that provides a soft hand to any fabric or garment. Seyco Soft LM-5 Conc is used to help blossom dark shades or make them appear darker. The product is a hydrophobic 45% solids emulsion that helps prevent spotting. |
| Seyco Soft ABBA Conc | A concentrated, nonionic, micro-emulsion silicone softener that provides a luxurious hand to any fabric or garment. Seyco Soft ABBA Conc will not alter shades at a neutral pH and will enhance darkness at lower pH levels. The product is a 56% solid emulsion and will not cause spotting. |

Note: Seyco Soft LM-5 Conc and Seyco Soft Abba Conc can be applied to neutralized sulfur-dyed black over-dyed fabrics or garments to boost the shade and move blacks away from a reddish cast to a more bluish cast. Usage dependent on the desired hand. Normally 10-20 g/l is sufficient with a lower 4.5-5.0 pH level improving the hand.

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SPECIALTY PRODUCTS (Continued):

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| Seyco Antizone Base and Conc 80 | A quaternary amine, cationic softener that prevents ozone or UV fading, or yellowing on properly neutralized or rinsed fabrics and garments. Seyco Antizone gives a very soft hand to cotton or cotton/synthetic blends. It can be applied by padding or spraying. It is available as a 100% wax or as a soft, 80% paste. |
| Seyco Rez ZFF and PFF | A self crosslinking, pre-catalyzed, glyoxal resin that gives optimum performance and durability on cotton or cotton/synthetic fabrics. It is available in a zero-formaldehyde version (ZFF), or a very low formaldehyde version that meets international testing norms and standards for formaldehyde content. |

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