

Orcogal ST™

Orcogal ST™ is a water-soluble, polymeric dye-complexing agent used primarily as a stripping agent.

Physical Properties

Appearance	Pale yellow fluid
Odor	Mild
Ionic Charge	Weakly Cationic
Specific Gravity	1.05
pH	7.5-8.0 for a 1% solution

Applications

- Dye-stripping processes on cotton and rayon dyed with vat, sulfur, or direct dyes in long liquors, package machines, or on jigs.
- Preparation of rag stock for high grade papers.
- Dyeing to lighten deep shades of direct-dyed cellulosic yarns or fabrics.
- Textile printing to prevent tinting of white backgrounds during soaping.
- Fulling of wool plaids, checks, and tweeds to protect bright colors and prevent staining of whites.
- Scouring as a soil-suspension agent in detergent washing of cellulosic and protein fibers.
- Slowing down of the exhaust rate of brightener-resin baths containing metal-salt catalysts.

Advantages

Orcogal ST™ is weakly cationic-active and forms very stable cation-anion complexes with dyes containing sulfo-groups and phenolate groupings such as direct, vat, or sulfur dyes. The bond between the dye and **Orcogal ST™** is so strong that **Orcogal ST™** acts as a *liquid fiber* for which the dye has greater affinity than cotton. In stripping operations, once the cellulose/dye bond is broken, the dislodged dye is preferentially and tightly bound to **Orcogal ST™**. Even after a prolonged stripping treatment, the **Orcogal ST™** /dye bond remains intact.

Procedures

Orcogal ST™ functions as a stripping and color-lightening aid only in the presence of soluble dye in the bath. With vat and sulfur colors, it is, essential to solubilize them by the use of hydrosulfite and caustic in conjunction with **Orcogal ST™** in the stripping bath. Solubilizing sulfur colors by the use of sodium sulfide and soda ash is not recommended for this application. The quantity of **Orcogal ST™** in the strip bath determines the degree of stripping. The concentration of **Orcogal ST™** should not go beyond 0.5 oz/gal. If higher amounts of **Orcogal ST™** are required in the strip bath, the liquor ratio should be decreased rather than the concentration of **Orcogal ST™**. This way, the amount of **Orcogal ST™** available for stripping is increased without impairing the bath stability.