

Leveling Agent 1060

Description

Leveling Agent 1060 is applied to polyamide fabrics dyeing processing. Polyamide fiber contains amino that is easy absorption of acid dyes which can be easily dyed fabrics and cause uneven dyeing. In the spinning process, due to the inhomogeneity of internal crystalline region, dye absorption is also inconsistent, causing two tone color shade and side-to-centre shading etc. It is essential to add leveling agent to control dyestuff dyeing rate and reduce dyeing defect.

Leveling Agent 1060 can effectively prevent production of dyeing defect occur, mainly present in following points:

1. Zwitterionic.

In the beginning of polyamide fabrics dyeing process, it needs to be dyed in neutral or alkali working bath to avoid color tone due to high concentration of dyes. Leveling Agent 1060 priority in dye absorption on the polyamide fiber, reducing the speed of dye uptake. With increasing of dyeing temperature, leveling agent action on dyestuff and fiber at the same time, when the dyeing liquid get close to boiling, it still can effectively control the dye uptake rate to avoid the color defects.

2. Effectively improve stripe defect and white stain caused by internal uneven structure of polyamide fiber.

Leveling Agent 1060 owns certain function of dispersing and solubilization, which help dyes evenly migration to the internal of fibers, eliminate white stain caused by partial oil spot refusal to dye.

3. High reproducibility.

Leveling Agent 1060 owns good dyeing migration property, ensure consistency of the dye uptake in the process of dyeing, more stable color. Once appear off color and repair needed in the process of dyeing, redye and color complementary are quite easy.

Typical and Physical Properties

Product Type		Leveling Agent / Auxiliary
Application		Industry
Brand		SCC
Packaging		60Kg/Drum, 125Kg/Drum
Standard Instructions		Company Standard
Volatility		Stable at normal temperature
Solubility		Water soluble
pH Value		7±1(1% Aqueous solution)
Appearance		Yellowish liquid
Specific Gravity		1.00
Ionicity		Anionic / Cationic
Compatibility	Cationic	Compatible, no sediment.
	Nonionic	Compatible, no sediment.
	Anionic	Compatible, no sediment

Potential Applications

- As leveling agent applied to polyamide fabrics dyeing process.
- As leveling agent applied to wool fabrics dyeing process.
- Applied to improve uneven color on polyamide printed large pattern.

Key Features and Benefits

1. With ability to combine with dyes into temporary complex, reduce dyes concentration and dye uptake rate in the preliminary stage. With the temperature increasing gradually release the dye, make even dyeing.
2. Certain of affinity to polyamide, give priority to dyes and fabrics complex temporarily, achieving full retarding dyeing and leveling effects.
3. Good disperse and cleaning ability. Clean again dirt and residual oil on the fiber, avoid color defects such as color spot, blotch, white stains and stripe caused by dyes agglomeration.
4. Good synergistic effect to different dyes uptake, maintain color consistency and reproducibility.
5. After dyeing it can be removed completely with dyeing bath, no effect to the consequent processes such as color fixing, softening, and three proofings etc.
6. Not sensitive to water quality, resistance to hard water, has the effect that chelate metal ion in dye bath, prevent the influence of metal ions to dyeing.
7. Excellent dyeing migration effect, effectively prevent two-tone color and can be used to repair after color defects appear.

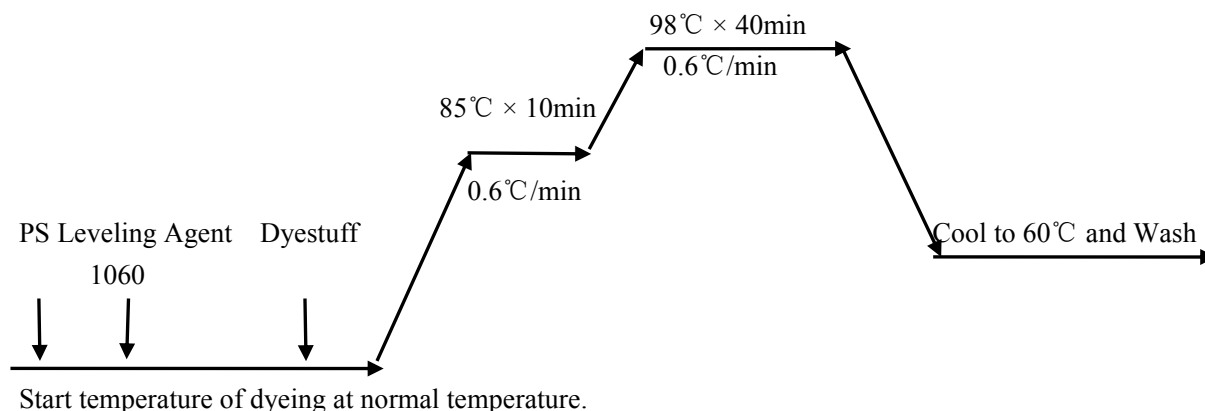
How to Apply:

Overflow dyeing machine impregnation method:

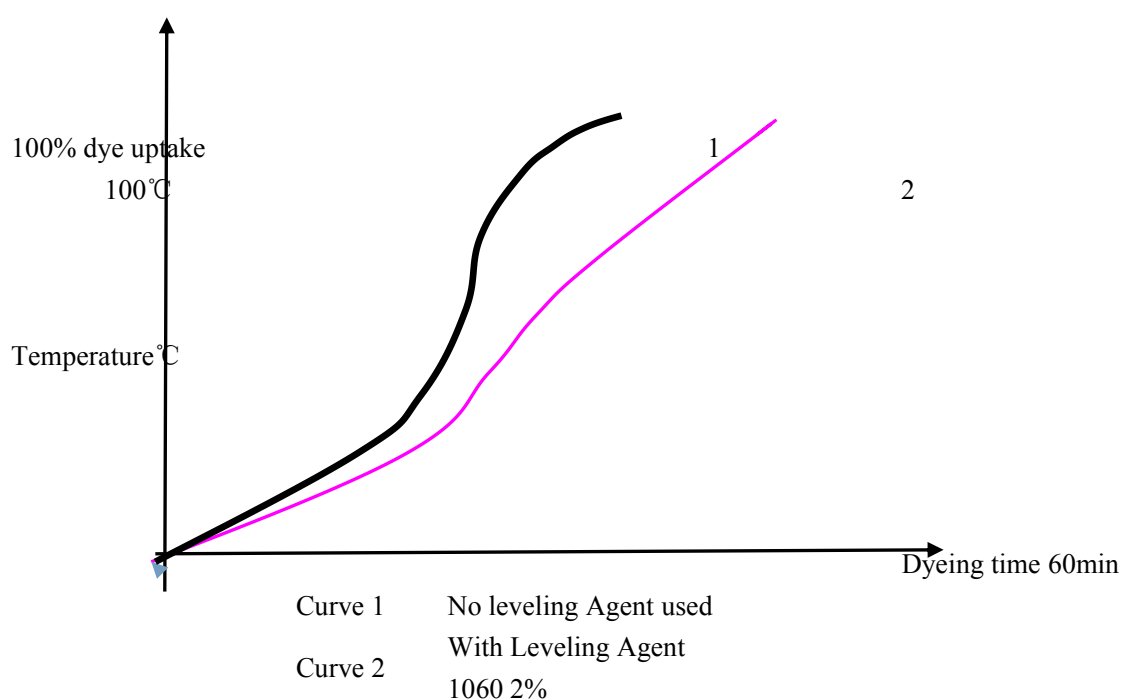
Fabric type: 150 g/m² ultra-fine polyamide micro fiber

Formula	Dosage
Nylosan Yellow 4GL	0.2%
ERIONYL Blue A-G	0.23%
Leveling Agent 1060	2%
Ammonium Sulfate	2%
pH Slip Agent PS	2%
Bath Ratio	1:20
Temperature	98℃
Time	40min

Design for Dyeing Curve:



In accordance with recipe above, the dyeing curve chart with Leveling Agent 1060 and without shown as below. From the dye uptake curve we can see, after adding Leveling Agent 1060, the dyeing rate is gentle and uniform. To green and coffee color which are difficult dyeing, it can effectively avoid color defects.



Leveling Agent 1060 dyeing migration performance:



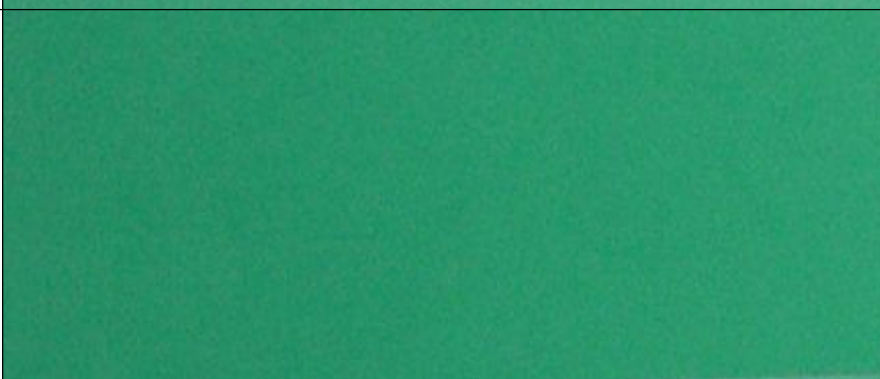
The migration power to dyes molecular is the leading indicator to determine leveling agent performance. Good dye migration performance helps the dyes evenly distributed in the fiber and obtain more uniform pure color. color deviation or color defects occurs in the actual production, need re-work, good migration ability of Leveling Agent 1060 make it easy to rework.



Reference formula of bright red dyeing migration as below:

Dyeing depth of bright red is 2%, add white gray cloth, treat 45min at 98℃, about 60% dyes was migrated to white gray cloth. For further migrate dye, just need to extend process time and will achieve expectation to dyes migration effect.



Leveling Agent 1060	2%
Bath Ratio	1:20
Temperature	98℃
Time	15\30\45min
Glacier Acetic Acid	Add slowly after treatment 30min at 98℃



Dyed Swatches:

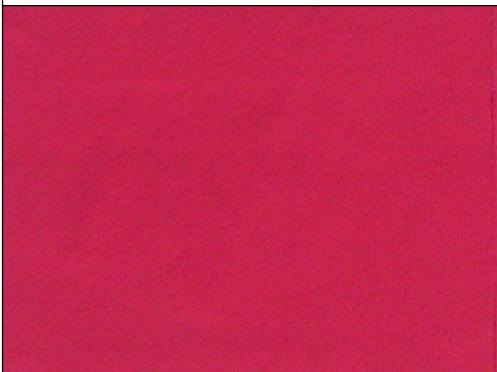
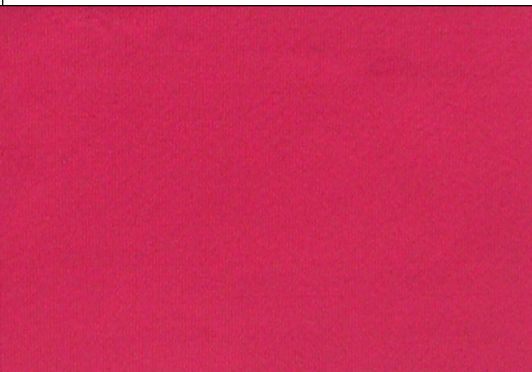
	Dyed Swatches
70 ℃	
80 ℃	
90 ℃	

98 °C	
98°C 30min	

Dye migration effect sample:

Dyed Swatch	Treat 15min at 98°C without leveling agent
	

Dyed Swatch	Treat 15min at 98°C adding Leveling Agent 3%
	

Dyed Swatch	Treat 30min at 98°C adding Leveling Agent 3%
	

Packaging

Plastic drum, 125 KG/ Drum

Storage

Prevent from freeze and sunlight exposure, placed in a ventilated cool area.

Shelf Life

12 months.

Technical Support

Kindly please be sure to have bulk trials before production and ensure the optimum formula. Any questions or suggestions please contact SCC customer service hotline: 0086 – 21 - 51860378 or visit the company web site www.thescc.net to obtain information. The manual may be updated based on SCC technology; we shall inform you the latest updates timely.

Technology and Application Centre of Shanghai SCC Fine Chemicals Co., Ltd.