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Product Name: Antree 1007 Low-Temperature Soaping Agent

Main Components

Surfactants and polymer blends

General Properties

Appearance: Light yellow to yellow transparent viscous liquid pH Value (1% aqueous solution): 2.0 Ionicity: Anionic

Product Features

- 1. Provides excellent cleaning, dispersing, and suspending effects for unfixed dyes, hydrolyzed dyes, alkalis, and electrolytes, effectively improving dye fastness.
- Superior anti-staining effect, particularly effective in preventing reactive dye staining on cotton fabrics, and preventing white background contamination in printed fabrics.
- Excellent technical performance, especially effective at low temperatures, with soaping temperatures reduced to 60°C, still maintaining good anti-staining soaping effects, thus saving energy.
- 4. Low foam.

Scope of Application

Used for soaping after dyeing and printing with reactive dyes, vat dyes, direct dyes, naphthol dyes, and acid dyes.

Usage Instructions

Continuous process: 1.0-3.0 g/L

Intermittent process: 0.5-2.0 g/L

Please adjust the specific dosage according to the type, color, and depth of the dyed fabric.

Packaging and Storage

125 kg plastic drums, sealed and stored away from light, with a shelf life of 12 months at room temperature.

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Product Name: Antree 1009 Alkali Substitute

Brief Information

Antree 1009 alkali substitute is formulated using advanced technology and can be applied in reactive dyeing processes, replacing soda ash.

Compared with traditional processes, Antree 1009 offers high color yield, good color stability, ease of operation, excellent leveling properties, and a significantly lower COD value in dyeing wastewater, resulting in ideal outcomes.

General Properties

- 1. For reactive dye fixation, the usage is 1/4 to 1/10 of the amount of soda ash.
- 2. It does not cause dye aggregation and provides better dye dispersion and leveling compared to soda ash.
- 3. It does not affect color fastness; washing dyed fabrics is easier than with soda ash, and acid-washing requires less acid.
- 4. The COD value in the dyeing residual liquor is low, reducing the burden of wastewater treatment.
- 5. It is more economical compared to soda ash.
- It does not contain phosphorus, with a hue very close to soda ash and good pH buffering capacity.

Application

Dissolve in 5-10 times the amount of warm water before adding to the auxiliary tank.

After entering the auxiliary tank, dilute with clean water without the need for backflow. Due to the higher fixation rate of reactive dyes compared to soda ash, laboratory samples should also use Antree 1009 for fixation. The dosage in immersion dyeing is 1/4 to 1/10 of traditional soda ash. After weighing, keep it sealed to prevent accuracy issues.

Packaging and Storage

25 kg/bag, with a shelf life of 6 months from the date of production.

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Product Name: Antree 2500Z Acidic Reductive Cleaning Agent

General Properties

Appearance: Light brownish-white powder Composition: Reducing agent, special anionic surfactants Ionicity: Anionic pH: Approximately 10.0 (5% aqueous solution) Solubility: Must be dissolved in cold water

Product Features and Applications

- 1. Provides high color fastness.
- 2. Low dosage required, cost-effective.
- 3. Can clean and reduce without draining the liquid, reducing the cost of steam, water, and time.
- 4. Does not require acid neutralization after dyeing, improving work efficiency.
- 5. It is a single-agent type, making the usage method simple.

Usage Instructions

Use 1/4 of the amount of sodium hydrosulfite as a reference. Add the product when the dye bath cools to $90-80^{\circ}$ C for 15–20 minutes. (Dissolve in cold water before adding, dye bath pH = 4)

Note: Do not use alkali agents under any circumstances!

Packaging and Storage

25 kg woven bags, sealed and stored away from light. The shelf life is 12 months at room temperature.

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Product Name: Antree Acid Soaping Agent

General Properties

- Composition: Mixture of various high molecular polymers
- Appearance: Pale yellow transparent liquid
- Ionic Nature: Anionic
- pH Value (1% aqueous solution): 2.0-4.0

Product Features

- 1. Foam-free.
- Used in the soaping process after dyeing with reactive dyes, combining acid neutralization and soaping in one step. This can save more than one-third of the neutralizing acid used, reduce energy consumption, and lessen the burden on wastewater treatment.
- 3. Excellent in neutralizing, cleaning, dispersing, and suspending unfixed dyes, alkalis, and electrolytes.
- During the soaping process for cotton and its blended fabrics, T/R (polyester/viscose), it can remove surface dyes and prevent re-staining.
- 5. Strong dispersing ability to prevent white spots and dye defects caused by water quality issues after soaping.

Application

Suitable for acid neutralization and soaping after reactive dye dyeing. It is an energysaving, water-saving, and environmentally friendly product that combines acid neutralization and soaping into one process. Generally, a dosage of 1-2g/L is sufficient for excellent neutralization, soaping, and anti-staining effects. Specific processes should be adjusted based on trial samples.

Packaging and Storage

- 50 kg plastic drum, sealed and stored at room temperature.
- Shelf life of 6 months.

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Product Name: Antree Defoamer

Main Components

Modified organosilicon emulsion; Nonionic surfactant.

General Properties

- Appearance: Pale white viscous liquid
- Solid Content (%): 30.0–34.0
- pH Value (1% aqueous solution): 7.5–9.5
- Ionic Nature: Nonionic
- Solubility (1% aqueous solution): Easily dispersible in water

Product Features

- 1. Specially designed defoamer for aqueous systems.
- 2. Low dosage, rapid defoaming, long-lasting effect, and significant foam inhibition.
- Suitable for defoaming and foam inhibition in aqueous solutions at 100-140°C.
 Reduces process time and increases production.

Scope of Application

Suitable for industries like textiles, dyeing, paper-making, and wastewater treatment for foam elimination or inhibition.

Usage Instructions

- Dilute with 20-50 times water or the liquid requiring defoaming to create a uniform solution, then add to the liquid to be defoamed. The dosage varies based on usage. For example:
 - Textile dyeing and boiling: 0.02-0.03g/L
 - Paper coating, sizing, bleaching: 0.5-2g/L

Specific processes should be adjusted based on trial samples.

Packaging and Storage

- 50 kg plastic drum, sealed and stored away from light.
- Shelf life of 12 months at room temperature.

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Product Name: Antree Low-Temperature Refining Agent

Main Components

Composite of surfactants.

General Properties

Appearance: Colorless pH Value (1% aqueous solution): 6.0~7.0 Ionicity: Anionic/Nonionic

Product Features

- The low-temperature refining agent can lower the bleaching temperature with hydrogen peroxide, enabling bleaching of cotton and cotton-blend fabrics at a low temperature of 70°C.
- **2.** It provides excellent refining results, improving the whiteness and absorbency of fabrics at relatively low temperatures.
- **3.** The reaction is mild, maintaining fiber shape with minimal strength loss and low weight loss.
- **4.** In cold padding processes, it can shorten the cold padding time and improve efficiency.
- **5.** It saves energy and reduces consumption, shortens processing time, lowers overall costs, and is simple to operate.

Scope of Application

Suitable for continuous or batch low-temperature oxygen bleaching pretreatment processes for cotton and cotton-blend fabrics.

Usage Instructions

1. Impregnation Process (Batch):
Low-Temperature Refining Agent: 0.5-3.0g/L
Refining and Degreasing Agent 1: 0.2-0.8g/L
H₂O₂ (27.5%): 4-8g/L
NaOH: 1-2g/L
Temperature: 70-80°C
Time: 30-40 min
Order of Addition: Add the low-temperature refining agent and refining and degreasing agent at room temperature, then add the alkali, and finally add the hydrogen peroxide.
Heat after circulation.

2. Cold Padding Process (Continuous):

Low-Temperature Refining Agent: 3-5g/L High-Efficiency Refining Agent: 2-8g/L H₂O₂: 10-15g/L NaOH: 30-50g/L Padding time: 8-12 hours Order of Addition: Water -- Alkali -- Low-Temperature Refining Agent -- Refining Agent, and finally add hydrogen peroxide.

3. Continuous Oxygen Bleaching Process:

Low-Temperature Refining Agent: 3-5g/L High-Efficiency Refining Agent: 1-5g/L H₂O₂: 4-15g/L NaOH: 5-30g/L Temperature: 65-70°C Time: 60-90 min Order of Addition: Water -- Alkali -- Low-Temperature Refining Agent -- Refining Agent, and finally add hydrogen peroxide. *Please adjust the specific process according to the sample tests.*

Packaging and Storage

Stored in 125 kg plastic drums, sealed and protected from light. Shelf life is 12 months under normal conditions.

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Product Name: Antree Moisture Absorbing and Quick-Drying Finishing Agent

Brief Information

The moisture-absorbing and quick-drying finishing agent is a hydrophilic polymer that can be applied to fabrics for hydrophilic finishing, particularly suitable for moisturewicking finishing of polyester fabrics.

General Properties

Appearance: Slightly cloudy liquid Ionicity: Anionic pH Value: 6~7 Solubility: Easily soluble in water

Product Features

- 1. Fabrics treated with this agent have excellent moisture absorption, quick-drying, and sweat-wicking properties with good durability.
- 2. It can reduce static electricity, improving the wearability of the fabric.
- 3. It provides a smooth and soft hand feel to the fabric.

Usage Instructions

1. Padding Method:

Dosage: 20~40g/L, two dips and two pads \rightarrow drying

2. Immersion Method:

Dosage: 2~6% o.w.f, 40°C for 20-30 minutes

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Product Name: Antree R1001 Multifunctional Refining Agent

Brief Information

Antree R1001 is a composite, multifunctional oxygen bleaching auxiliary agent. It replaces traditional process components such as oxygen bleaching stabilizers, refining penetrants, and caustic soda, thus reducing production costs and shortening the oxygen bleaching process. It is especially suitable for the oxygen bleaching process of cotton, linen, and their blended fabrics.

Product Features

- 1. Greatly simplifies the oxygen bleaching process, making it simple and practical.
- During processing, it reasonably controls the decomposition rate of hydrogen peroxide, making the oxidation effect of hydrogen peroxide more thorough. It can be used for high-temperature and high-pressure bleaching, shortening the bleaching time, with bleaching at 130°C requiring only 5 minutes.
- 3. The fabric is completely free of impurities and pigments after oxygen bleaching, resulting in higher whiteness.
- Effectively prevents the strength reduction of fabrics after oxygen bleaching (particularly noticeable for linen fabrics). The weight loss rate of bleached fabrics is only about 3~3.6%, with a soft hand feel; bleached yarn does not break or stick.
- 5. If hydrogen peroxide-resistant direct dyes are selected, refining, bleaching, and dyeing can be carried out in a single bath.

 The bleached base is even, with good dye uniformity. It does not contain caustic soda, avoiding uneven dyeing caused by uneven alkali addition during oxygen bleaching, thus shortening process time and saving water and electricity.

General Properties

A mixture of complex molecules with strong antioxidant properties.

Appearance: White granular crystals Ionicity: Anionic pH: 10.5~12 when dissolved

Solubility: Easily soluble in warm water

Applications

1. Cotton, polyester/cotton

- Hydrogen Peroxide (35%): 5 ml/L
- Antree R1001: 2~3 g/L
- o Bath ratio: 1:10
- 98~100°C/30~40 minutes; 120°C/15~20 minutes; 130°C/5 minutes.
- Hot water wash, water wash

2. Linen

- Hydrogen Peroxide (35%): 10~15 ml/L
- Antree R1001: 5 g/L
- Bath ratio: 1:10-15, 98~100°C, 40~60 minutes;
- Hot water wash, water wash

3. Continuous Pad-Steam for Cotton Fabrics

- Hydrogen Peroxide (35%): 30~50 ml/L
- Antree R1001: 10~20 g/L

• Hot water wash, water wash

4. One-Bath Refining, Bleaching, and Dyeing for Cotton Fabrics

- Direct Dye (resistant to H₂O₂): X% o.w.f
- Hydrogen Peroxide (35%): 5% o.w.f
- Antree R1001: 3% o.w.f
- Bath ratio: 1:10-15, 95~100°C/30~40 minutes;
- Hot water wash, water wash

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Product Name: Antree Rapid Leveling Agent

Brief Information

The rapid leveling agent is primarily used for high-temperature dyeing of polyester or polyester-blend fabrics and polyester microfiber fabrics.

Compared to traditional leveling agents, the rapid leveling agent has a higher tolerance and offers significant migration and leveling effects, especially for the rapid dyeing of disperse dyes.

General Properties

Appearance: Brown transparent liquid Ionicity: Anionic/Nonionic pH Value: 6.5-7.5

Scope of Application

Suitable for polyester, polyester blends, yarn packages, and polyester microfiber fabrics.

Product Features

- 1. Provides excellent dye uptake synchronization, ensuring uniform adsorption and penetration of dye molecules on the fibers, preventing color streaks.
- 2. Exhibits good migration properties, preventing secondary aggregation of disperse dyes and contamination of the dyeing machine.

 Demonstrates outstanding slow-dyeing properties, allowing for uniform dyeing even with rapid temperature increases, saving 30-50 minutes compared to traditional leveling agents.

Usage Instructions

Dyeing Plant Heating Process:

Use 0.25% leveling agent: Enter dye at 40-50°C (reuse water with temperature); increase temperature at 2°C/min to 80°C and hold for 5 minutes; increase temperature at 1.2°C/min to 115°C and hold for 10 minutes; increase temperature at 1.5°C/min to 135°C and hold for 30 minutes.

The usual dosage of leveling agent is 0.2-0.3% (based on fabric weight) (light colors: 0.3g/L, dark colors: 0.2g/L), and the usual dosage of corrective agent is 0.5-1% (based on fabric weight); bath ratio 1:6.

Note: The rapid leveling agent is a high-concentration product that can be used directly or diluted before use, depending on the manufacturer's convenience.

Disclaimer



Product Name: Antree S2009 Energy-Saving Soaping Agent

Brief Information

The energy-saving soaping agent is a product developed with a new concept, different from traditional soaping agents for reactive dyes, aimed at rationalizing processes. It excels in removing unfixed and hydrolyzed dyes, allowing for fewer washes after dyeing, thereby saving water. Fabrics treated with this product can achieve high fastness and vibrant colors. Additionally, it is a low-pollution product, reducing environmental and water pollution during fiber processing.

General Properties

Appearance: Colorless transparent liquid pH: Approximately 6.0

Product Features

- By breaking down unfixed dyes in the soaping bath, it enhances decolorization and reduces the number of hot water washes and rinses, thereby shortening the dyeing process, saving water, and conserving energy.
- 2. Compared to previous soaping agents, the burden on wastewater treatment is significantly reduced during use.
- Since unfixed dyes are thoroughly removed, the dyed fabric achieves vibrant colors and excellent water and rubbing fastness.
- This product is non-foaming, so there are no foam-related issues during processing.

Usage Instructions

The optimal dosage of Antree S2009 energy-saving soaping agent varies depending on the type of dye and conditions. The usual dosage is 1g/L for light colors or 2-3g/L for dark colors. After dyeing, perform hot water washes and rinses; add Antree S2009 to the soaping bath at 80~100°C, then proceed with hot water washing and rinsing.

Precautions for Use

- Antree S2009 must be dissolved in water before being added to the soaping bath; it should not be added directly. Dissolving with hot water can cause abnormal decomposition, so it must be dissolved in cold water.
- 2. Antree S2009 should not come into direct contact with dyed fabrics.
- If Antree S2009 gets into the eyes or mouth, rinse immediately with plenty of water.
- 4. Antree S2009 is an oxidizing substance; avoid contact with heavy metals and reducing agents.
- 5. Depending on the type of dye, the effect of Antree S2009 may sometimes not be fully realized.
- 6. Use Antree S2009 cautiously on reactive turquoise and brilliant blue; conduct preliminary tests and control consistency in operations.
- 7. Store Antree S2009 in a cool, dark place, and use it as soon as possible after opening.

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Product Name: Antree Silk Softener

Main Components

Amine- and hydroxyl-modified organosilicon emulsion.

General Properties

- Appearance: Pale white semi-transparent emulsion
- Solid Content (%): 18.0-20.0
- pH Value (1% aqueous solution): 6.0-8.0
- Ionic Nature: Anionic

Product Features

- 1. Strong affinity for polyester and other fabrics, providing a smooth, soft, and resilient texture with good breathability and wrinkle recovery.
- 2. Excellent darkening effect on dark fabrics.
- 3. Strong affinity for silk, imparting a smooth hand feel and increasing the strength of silk fibers, lengthening long fibers, and reducing short fibers, thereby increasing the utilization rate (yield) of silk raw materials by 3-7%, without significantly affecting the residual oil rate.

Scope of Application

Suitable for imparting a smooth hand feel to silk.

Usage Instructions

1. For silk finishing:

- Dosage: 4-8% (o.w.f)
- o pH Value: 5-6
- Temperature: Around 40°C
- Time: About 1 hour
- Process: Thoroughly rinse refined silk raw materials (wash with hot water, then cold water) to remove residual alkali and dehydrate for use. Add an appropriate amount of water to the softening bath (tank) → adjust pH with acetic acid → add TF-404A and stir evenly → add refined raw materials.

2. For polyester finishing:

- Can be done by conventional processes, such as one dip and one pad or two dips and two pads. Pre-dry at 100°C, then bake at 130-180°C for 30 seconds. The usual dosage is 10-20g/L.
- Specific processes should be adjusted based on trial samples.

Precautions

- Improper storage or use may cause stratification or oil separation.
- Avoid using poor-quality water (e.g., with hardness above 100 ppm as CaCO₃) for dilution to prevent adverse effects on finishing quality.

Packaging and Storage

50 kg plastic drum, sealed and stored away from light. Shelf life of 12 months at room temperature. Avoid prolonged exposure to extreme heat or cold, which can cause oil separation and stratification.

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