



evolve

Printex Monthly News Bulletin

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TIPS OF THE MONTH



**GOOD DECISION
COMES FROM
EXPERIENCE
AND EXPERIENCE
COMES FROM
BAD DECISIONS.**

The **cheerful
loser** is the
winner

A little more persis-
tence, a little more
effort, and what
seemed hopeless
failure may turn to
glorious success.

~ Elbert Hubbard

Life without a vision is like a
journey without a destination.

Polyester (PES) Discharge/Disperse Discharge through Alkali

(Soda Ash, Na₂CO₃)

SUBJ-20:

Polyester (PES) Discharge/Disperse Discharge through Alkali (Soda Ash, Na₂CO₃)



Chemicals:

Synthetic Thickeners (Polysaccharide), Soda Ash, Sodium Hydro sulfite and Caustic for Reduction Cleaning (although not necessary, it is done to have shine and glorious effect), Disperse Dyes

1. Stable to Alkali
2. Not Stable to Alkali.

Bit Discussion:

Polyester dyed or printed fabric can also be discharged but discharging requires more severe conditions like chemicals and parameters to obtain good results. Discharge of Polyester is more crucial and every dye cannot be discharged.

Normally there are two ways to Discharge a polyester fabric printed through Disperse dyes. First, utilization of simple alkali like soda ash which provides alkaline medium required to carry out discharge and other is done through utilization of Ragolit C and Tin Chloride.

Here in this post we are going to utilize former method in which we will be discharging through alkali soda ash. There are two kind of disperse dyes. One, Which are not stable to Alkaline medium at all and Second, Those disperse dyes which can bit stand with alkaline medium. So, this is basic principle which we are going to utilize in our both discharges, white and color Discharge.

PROCESS:

Dyeing Recipe:

Padding Liquor{Continuous Process}

Disperse Dye (Not stable to Alkali)	30 g/Kg
Acetic Acid	To Adjust Ph between 5-6
Water	Balance
Total	1 Kg

Pad at pressure 2bar with pick up 70 to 80.
Dry at 110C° for 1Min.

After Dyeing, Not fixed Yet and remember, we need not to fix it here.



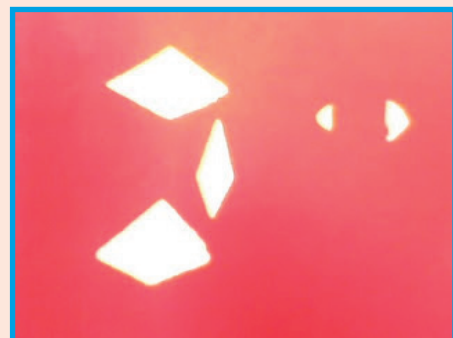
PRINT(DISCHARGE):

White Discharge Recipe:

Synthetic Thickeners(8%)	Balance
Soda Ash	30 g/Kg
Total	1 Kg

Pad at pressure 2bar with pick up 70 to 80.

Dry at 110C° for 1Min.



Color Discharge Recipe:

Synthetic Thickeners(8%)	Balance
Disperse Dye (Stable to Alkali)	30 g/Kg
Soda Ash	30 g/Kg
Total	1 Kg



Fixation:

Different fixation modes are tried like

1. Saturated Steam 102°C for 30min.
2. Curing(Dry Air) at 210°C for 1Min.
3. High temperature Steaming (170°C, 40% Moisture for 15Min)
4. Pressure Steaming (2.5Bar, 140°C for 30Min) {Recommended}

Only Fixation modes recommended for Discharge either white or Color is Pressure Steaming the fourth one. Other methods will not work as far as Discharge is concerned, Although color fixation is normally done through second and third option too. First one is big and all time failure for disperse dyes fixation.

Look here the difference of fixation Modes on end result.

Fixation through Curing 210°C for 1Min
White Discharge.....Color Discharge.



White Discharge.....Color Discharge.
Fixation through Pressure Steaming 2.5Bar for 30Min.

Washing{Reduction Cleaning}:

- Cold rinse
- Hot rinse with Soap for 1Min.
- Reduction Cleaning with
 - 2g/L Soap
 - 2g/L Caustic 48Be°
 - 4g/L Sodium Hydro Sulphite {Na₂S₂O₄}

- Hot rinse with Soap for 1Min.
- Cold Rinse

What if one has Disperse dyed piece{Fabric}, Which have been fixed too {Mean fixation has been carried out} :

Fixed dye will not be discharged through simple alkali technique as dye has completely made its space into the fabric and will be needed Rangolit C or Tin chloride to carry out the Discharge.

FSC® CERTIFICATION Ensuring good Forest practices.

BUSINESS CHALLENGE

Consumers, companies, public authorities require more and more guarantees that harvested trees, paper and wood products come from properly managed sources. FSC® (Forest Stewardship Council) certification system enables to differentiate wood products that come from responsible forest management which delivers added value. This scheme is based both on sustainable development and good practices principles applied to forest management and on traceability principle applied to trading and processing companies using wood products from the certified forests.

SOLUTION

What is FSC Certification?

The Forest Stewardship Council (FSC®) is an independent NGO (Non Governmental Organization) created in 1993 by environmental NGOs, wood trade organizations, foresters, indigenous people and certification bodies representing 25 countries. It stands as the one of the most globally recognized group promoting forestry certification standards.

FSC® is based on two solutions:

- a Forest Management certificate, for companies that manage forests resources;
- a Chain Of Custody certificate, for companies using forest products (i.e., furniture manufacturers, publishers, pulp industries, and all wood products...) to attest the wood origin traceability.

What are the key benefits?

- Increasing consumer confidence
- Ensuring better access to your markets through strong differentiation
- Protecting forest resources
- Improving your brand image

CONFLICT MINERALS

The term "conflict minerals" is defined as columbite-tantalite, also known as coltan (from which tantalum is derived); cassiterite (tin); gold; wolframite (tungsten); or their derivatives; or any other mineral or its derivatives determined by the Secretary of State to be financing conflict in the Democratic Republic of the Congo or an adjoining country.

In 2010, President Obama signed the Dodd-Frank Consumer Protection Act into law. Section 1502 of that act addresses the international trade and use of Conflict Minerals. But what are Conflict Minerals and how do they affect our everyday lives? Like the similar issue of Conflict Diamonds or Blood Diamonds, the term Conflict Minerals refers to raw materials that come from a particular part of the world where conflict is occurring and affects the mining and trading of those materials. Our infographic below will help you understand some of the key points surrounding this issue and what it means for consumers and companies in the United States.



The four most prominent conflict minerals, for example codified in the U.S. Conflict Minerals Law, are:

- **Columbite-tantalite** (or coltan, the colloquial African term) is the metal ore from which the element tantalum is extracted. Tantalum is used primarily for the production of capacitors, particularly for applications requiring high performance, a small compact format and high reliability, ranging widely from hearing aids and pacemakers, to airbags, GPS, ignition systems and anti-lock braking systems in automobiles, through to laptop computers, mobile phones, video game consoles, video cameras and digital cameras.[12] In its carbide form, tantalum possesses significant hardness and wear resistance properties. As a result, it is used in jet engine/turbine blades, drill bits, end mills and other tools.
- **Cassiterite** is the chief ore needed to produce tin, essential for the production of tin cans and solder on the circuit boards of electronic equipment.[13] Tin is also commonly a component of biocides, fungicides and as tetrabutyl tin/tetraoctyl tin, an intermediate in polyvinyl chloride (PVC) and high performance paint manufacturing.
- **Wolframite** is an important source of the element tungsten. Tungsten is a very dense metal and is frequently used for this property, such as in fishing weights, dart tips and golf club heads. Like tantalum carbide, tungsten carbide possesses hardness and wear resistance properties and is frequently used in applications like metalworking tools, drill bits and milling. Smaller amounts are used to substitute lead in "green ammunition".[14] Minimal amounts are used in electronic devices, including the vibration mechanism of cell phones.
- **Gold** is used in jewelry, electronics, and dental products. It is also present in some chemical compounds used in certain semiconductor manufacturing processes.

These are sometimes referred to as "the 3T's and gold", 3TG, or even simply the "3T's". Under the US Conflict Minerals Law, additional minerals may be added to this list in the future.



CONFLICT MINERALS

DEATH

Over **5.4 Million** Congo Civil Conflict Deaths

Congo Civil Conflict Deaths vs Historical American War Deaths

♀ = 250,000 Deaths

US Revolution 108,800

US Civil War 850,000

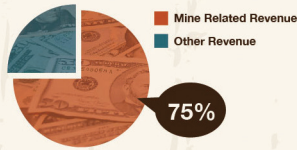
Vietnam War 1.7 Million

Korean War 3 Million

Congo Civil Conflict Deaths 5.4 Million

MONEY

Armed Group Revenue



Congo's Total Mineral Profits

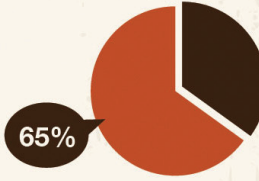


Dodd Frank has successfully reduced revenue to militias by 65%.

Mineral Revenue to Militias Pre Dodd Frank



Smuggling is still a big problem. 65% of current trade involves smuggling.



Smuggling Involved Trade (Red)
Non-Smuggling Involved Trade (Black)

Estimated Companies Reporting Because of Dodd Frank

1,200

Estimated Companies Affected by Dodd Frank

12,000

News from Printex

By the Grace of Almighty Allah, Printex has got the Sole Agency of HayColor - Srilanka and now their ECO Range of Pigment is available in Stock.

Printex has installed the Sroque Spider Printing Machine at Printwell and now the daily production capacity of Printwell is minimum 15000 pieces.

The direct to Garment DTG Digital Machine is also installed and Digital Printing Facility also available at Printwell.

Cresa Sales Engineer Mr. Gomez Igansi will be available in Pakistan from 6th June till 13th June to make some new developments.



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