

Technical - Information

AVCO-FIX PDC

CATIONIZING AGENT FOR THE EXHAUST PIGMENT DYEING PROCESS

AVCO-FIX PDC is a high quality CATIONIZING AGENT developed to obtain special dyeing effects and improve color yield on cellulosic fibers dye with aqueous anionic pigment dispersions.

AVCO-FIX PDC has strong cationic charges, so it can make pigment dyeing full absorption and has a good washing fastness. It is also good for dyeing pigments on towel, and knitwear made of cotton, polyester and nylon. For denim, combined with Soda ash, it increases the contrast effect.

SPECIFICATIONS:

Appearance	Colorless to pale yellow liquid.
Chemical nature	Aqueous dispersion of a copolymers.
Ionic type	Cationic.
Density (at 20°C)	1.12 – 1.14 g/cc
pH (10% sol.)	3 - 4
Solubility	Soluble in water at any ratio.
Stability	Compatible with nonionic and cationic products.
Stability to frost	Solidifies < 0°C.
Storage stability	Stable for 6 months. AVCO-FIX PDC should be stored at a temperature between 0 and 25°C.

PROPERTIES & USES:

1. AVCO-FIX PDC is readily pourable, soluble in water, so easy for use.
2. Good wash fastness results.
3. The dyed fabrics and garment are soft with a more natural handle.
4. Machine cleaning is more easy.
5. With pigment concentration $\leq 1\%$, no need to treat with fixing agent afterward.
6. The addition with 1g/l Soda ash will increase approx. 20% exhaustion of pigment, keeps AVCO-FIX PDC stably on the surface of the fabric, therefore enhance the contrast effect.
7. The maximum concentration of pigment can be dyed with AVCO-FIX PDC is ;

Technical - Information

Normal pigment:	6 – 7%
Fluorescent pigment:	up to 20%

APPLICATION:

I. In Exhaust process:

The exhaust pigment dyeing process consists of the following steps:

- Desizing and bleaching dyeing materials. On pre-bleach garments, the bleaching step is omitted.
Use only nonionic detergents such as AVCO-BLANK JET and non ionic lubricants such as AVCO-SLIP RF.
- Cationization with AVCO-FIX PDC during 30 minutes at 60°C, and at pH between 5 – 7 and rinse.
When combine with Soda ash: Add Soda ash first, then add AVCO-FIX PDC slowly.
- Dye with AVCO-DYEFIX A pigment range and rinse.
- Introduce AVCO-FAST PDB at 40°C for 20 min.
- Introduce the softener.

Recommended dosage:

The quantity of the AVCO-FIX PDC to add, will change depending the quantity of pigment dyes used.

The dosage of AVCO-FIX PDC to add is referring to the fabric weight.

- Standard process :

Pigment (%)	pH	AVCO-FIX PDC(%)	Fabric shades
1 to 2	5 to 7	2 to 3	Light
2 to 3	5 to 7	3 to 5	Medium
≥ 3	5 to 7	5 to 7	Dark

- High shade contrast process :

Pigment (%)	pH	AVCO-FIX PDC(%)	Fabric shades
2 to 3	7 to 9	4 to 6	Medium
≥ 3	7 to 9	6 to 8	Dark

II. In Spraying process (Garments):

A solution of 800g/l AVCO-FIX PDC is prepared in cold water with stirring conditions.

pH should be eventually adjust at 6.5. This aqueous solution is sprayed on the garments.

Drying at 110 - 130°C.

Curing for 4 min at 150°C.

Technical - Information

III. In Padding process (Fabrics):

A solution of 50 - 60g/l AVCO-FIX PDC is prepared in cold water with stirring conditions.

pH should be eventually adjust at 6.5

Padding with a liquor pick up 70 - 90%.

Drying at 110 - 130°C.

Curing for 4 min at 150°C.

IV. For Special effect on denim:

The garments could be sprayed locally with AVCO-FIX PDC in order to obtain designs after stone-washing or bleaching steps.

Fabrics could be also printed with a thickening solution of AVCO-FIX PDC.

Guar gum could be used as thickening agent.