

AVCO-DISPERSANT NS

DISPERSING AGENT FOR DISPERSE AND VAT DYES

AVCO-DISPERSANT NS is a non-foaming dispersing agent used in dyeing of Polyester, Polyester blends and Acetates with disperse dyestuffs. AVCO-DISPERSANT NS is used also as a dispersing agent in dyeing processes with vat dyestuff, and for stripping-off cationic dyes and fixing agents.

SPECIFICATION:

Appearance	Sulphonated condensed polymer in aqueous solution.
Chemical Nature	Brown liquid.
Specific gravity at 20°C	1.12 – 1.16 g/cm ³
Ionicity	Anionic.
Solubility	Dilutable with cold and warm water in any ratio.
Stability to: Acids, Alkalis, Water hardness	} Good under the conditions normally found in commercial practice
Foaming	Non-foaming at all.
Storage stability	Good for at least 12 months.

APPLICATION:

1) Dyeing with disperse dyes

In normal cases 1 g/l AVCO-DISPERSANT NS suffices, in difficult cases up to 3 g/l AVCO-DISPERSANT NS are used.

A particular advantage is that excess concentrations of AVCO-DISPERSANT NS have no adverse affect.

Following is an example of a procedure for HT dyeing:

1. Warm bath to 50-60° and add 1-3 gr/l AVCO-DISPERSANT NS.
2. Adjust pH to 4-5 with acetic acid or with AVCO-CID ACD (acid buffer).
3. If necessary add 1-2 g/l AVCO-NAL PLD (levelling agent).
4. Add the disperse dyestuff (pre-dispersed in water and filtered).
5. Raise the temperature to 125 – 135°C and dye for 30-45 minutes.
6. Cool down slowly to 80°C and drop bath.

AVCO-DISPERSANT NS is not recommended for use with optical brighteners. For this purpose use AVCO-NAL BM.

2) Dyeing with vat dyes

The presence of AVCO-DISPERSANT NS as a protective colloid and dispersing agent is particularly beneficial in dyeing with vat dyes where high concentrations of dye or highly concentrated powder or paste grades are being used. Because of its stabilizing action AVCO-DISPERSANT NS is also very useful in stock vats with limited stability and in special dyeing processes such as the gradual temperature rise process and in dyeing with disperse and vat mixture dyes.

An addition of 10 g/l AVCO-DISPERSANT NS to un-vatted dye dispersion prior to the addition of Caustic Soda and Hydrosulfite will greatly improve the stability of stock vats.

It is advisable to add a further 1 g/l AVCO-DISPERSANT NS to the dye-bath so as to utilize fully the dispersing action of the product. Excellent dye-bath stability in circulating liquor machine dyeing is achieved with 3 g/l AVCO-DISPERSANT NS.

For the shock oxidation of vat dyes 2-3 g/l AVCO-DISPERSANT NS are added to the oxidation bath. This prevents any oxidized vat dye still left in the bath from filtering out and impairing the rub fastness of the dyed material.

3) After treatment in the dyeing of Disperse/Reactive and Disperse/Vat.

Disperse dyes stain cellulosic fibres in the following processes:

1. During dyeing
2. Due to thermomigration effect which occurs during the soaping-off process.
3. In the reverse method - preliminary dyeing of cotton followed by dyeing of polyester (no reduction clearing is possible).

Removal of the unfixed disperse dye is obtained by final treatment of the goods at 80°C with 1-2 g/l AVCO-DISPERSANT NS for 15 min.

For dark shades repeat this process. This treatment ensures high wash fastness to the goods.

4) Detergent for after washing dyed/printed polyester

Use the following recipe:

NaOH(50%)	1 - 3 g/l
Hydrosulphite	2 - 4 g/l
AVCO-DISPERSANT NS	1 - 3 g/l

Treat at 70-80°C for 20-30 mins and rinse.

5) Stripping-off cationic fixing agents

Use the following recipe:

Formic acid	2 - 4 cc/l
AVCO-DISPERSANT NS	2 - 4 g/l

Treat at 90-90°C for 30-45 min. and rinse.