

Technical - Information

AVCO-LUX ETB/ ETBN

OPTICAL BRIGHTENER FOR POLYESTER FIBRES

AVCO-LUX ETB is an ideal optical brightening agent for polyester with high whiteness, low dosage and bright color shade. Mainly used in whitening and brightening of polyester and its blends by the thermosol and exhaust methods.

AVCO-LUX ETB is a tinted version of AVCO-LUX ETBN with more violet-bluish shade.

SPECIFICATION:

Appearance	Slight yellow dispersing liquid (AVCOLUX ETB Is bluish white).
Chemical nature	Optical brightener in aqueous dispersion.
Ionicity	Nonionic.
Solubility	Dispersible in water.
pH (1% sol.)	6 - 8
Stability to hard water	Good.
Stability: Peroxide bleaching bath, Sodium chlorite bath	Very good, Limited
Storage	Can be stored for 6 months under room temperature and hermetic condition without exposure to sunlight.

PROPERTIES & USES:

1. AVCO-LUX ETB/ ETBN produces excellent white effects of a neutral to violet-bluish shade on polyester fibres, when applied by the thermosol process at temperatures of 160 - 200°C, or by the exhaust method, particularly under HT conditions at temperatures of 110 - 135°C.
2. Very good white effects are obtained even at fairly low temperatures due to the high fixation capacity of AVCO-LUX ETB/ ETBN.
3. Excellent white effects are achieved on texturized polyester goods in the thermosol process at temperatures as low as 150°C, taking into account the normal dwell times. Generally speaking, however, such articles are thermosoled at temperatures between 170 - 180°C.
4. AVCO-LUX ETB/ ETBN is very suitable for the brightening of the polyester component in polyester/cellulosic blends. The brightener can be applied to the fibre before, during or after peroxide bleaching.
5. Polyester/cotton goods brightened with AVCO-LUX ETB/ ETBN can be subsequently bleached with chlorite without any problems, the product is fast to chlorite in this case. It is not recommended to apply AVCO-LUX ETB/ ETBN during chlorite bleaching.

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6. Very good effects are also achieved by applying AVCO-LUX ETB/ ETBN together with resin finishing agents by the shock curing method to goods ready for finishing. Magnesium-chloride or a commercial shock curing catalyst are normally used as the catalyst for the reactant resins used in this process. Zinc salts such as zinc nitrate or zinc chloride may impair the white effect obtained with AVCOLUX ETB when shock curing is the method used. A preliminary trial is therefore recommended.
7. AVCO-LUX ETB/ ETBN produces attractive white effects on burn-out articles especially if the burning-out process is followed by chlorite or hypochlorite bleaching.
8. The white effects can be further improved by applying the optical brightener under HT conditions by the exhaust method in the presence of a dispersing agent such as AVCONAL BM. When brightening is carried out at temperatures near boiling, the addition of a suitable carrier produces somewhat higher degrees of whiteness than just a dispersing agent.
9. Over dosing of AVCO-LUX ETB/ ETBN is causing yellowing of the optical brightening effect.

REMARKS:

1. Rinse the fabric thoroughly to ensure there is no residual alkali on fabric after bleaching under alkali condition.
2. Shake well before use, and then weigh precisely.
3. In all the guiding recipes in the Application part apply AVCO-LUX ETB or AVCO-LUX ETBN according to the required white effect.

APPLICATION:

1. Thermosol process:

AVCO-LUX ETB/ETBN: 10 – 20 g/l

Process: Padding (2 dip, 2 nip) pick up 70% → Drying 100°C x 30 sec → curing 180 – 200°C for 45 – 60 sec.

2. Exhaustion:

AVCO-LUX ETB/ ETBN: 0.3 – 1.5 %

Liquor ratio: 1:10 – 1:30

pH: 6 – 13

Temperature: 110 – 135 °C

Time: 30 – 60 mins

Note: Actual process should be adjusted according to preliminary tries.