

Technical - Information

AVCO-CATALYST LT 1A /AVCO-BLEACH LT 2B

"ONE-SHOT" LOW TEMPERATURE PEROXIDE BLEACHING OF COTTON

AVCO-CATALYST LT 1A and AVCO-BLEACH LT 2B is a synergistic system of two components offering the textile dye-house a complete solution for the demand of cost saving and eco-friendly low temperature bleaching system.

AVCO-CATALYST LT 1A and AVCO-BLEACH LT 2B system is designed for peroxide bleaching of cotton at 80°C with hydrogen peroxide in jets and in high liquor ratio machines.

The special activating additive added to the system accelerates and activates the bleaching effect of hydrogen peroxide and shortens the required bleaching time, and thus enables bleaching at low temperature in the range of 75 – 80°C instead of the usual peroxide bleaching temperature which is in the range of 95 – 110°C.

Lower bleaching temperature process consumes less energy and saves machine time, which means lower production costs.

Lower bleaching temperature means also lower fibre damage, less pilling and softer handle.

The new LOW TEMPERATURE bleaching is offering a pronounced save of energy consumption along with save of machine time (app. 1 hour time save per cycle).

The result is lowering of direct bleaching costs by app. 20% along with pronounced increase of bleaching machine efficiency by app. 15%.

SPECIFICATIONS:

	AVCO-CATALYST LT 1A	AVCO-BLEACH LT 2B
Appearance	Grey to brownish liquid.	Colorless, clear liquid.
Chemical nature	Aqueous compound of bleaching activator and stabilizers.	Aqueous compound of nonionic surfactants, glycol-ether, emulsifiers, bleaching activator and defoamers.
Ionic type	Anionic.	Nonionic.
pH (10% sol.)	6 - 8	6.5 - 8
Solubility	Miscible with water at any ratio.	Miscible with water at any ratio.
Compatibility	Compatible with all chemicals normally applied in peroxide bleaching.	Compatible with all chemicals normally applied in peroxide bleaching.

Technical - Information

Storage	When stored in closed original packages, stable for at least 12 months.	When stored in closed original packages, stable for at least 12 months.
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PROPERTIES & USES:

1. Peroxide bleaching system containing all surfactants, stabilizers, activators and sequestering agents required for the low temperature bleaching process (75 - 80°C).
2. The AVCO-CATALYST LT 1A and AVCO-BLEACH LT 2B is a cost saving and eco-friendly bleaching system.
3. The system is recommended for bleaching cotton and cotton blends in discontinuous bleaching machines.
4. Very good detergency and emulsifying properties towards dirt, waxes and oils which can be found in raw cotton knits. The absorbency of the bleached fabrics is excellent.
5. Lower bleaching temperature means lower energy consumption and shortening of the bleaching time. The result is lower production cost and improved efficiency.
6. Maximum reproducibility.
7. Softer fabric handle.
8. Lower tendency towards pilling.
9. Can be applied also for full bleaching of cotton with optical brighteners.
10. The products are low foaming and can be applied in high speed jets.

APPLICATION:

Half bleaching of 100% cotton knit in the jet (L.R.1:8- 1:10):

AVCO-CATALYST LT 1A	0.6 - 0.8	g/l
AVCO-BLEACH LT 2B	0.6 - 0.8	g/l
H ₂ O ₂ (50%)	4	cc/l
Soda caustic (50%)	4	cc/l

USE HIGHER DOSAGE AT LOWER LIQUOR RATIO

Run at 80°C for 20 - 30 minutes.

Drop bath and rinse at 70 - 80°C.

Neutralize and continue with the enzymatic peroxide residues elimination with AVCO-SAN 3EP followed by dyeing in the same bath.

When bleaching grey good, it is advisable to add if needed a bath lubricant such as AVCO-SLIP RF (1-2 g/l). Then load fabric and circulate for 5 min, and add the other bleaching auxiliaries and start the bleaching process.

Full bleaching with O.B. of 100% cotton knit in the jet (L.R.1:8 - 1:10):

Technical - Information

FULL BLEACH AT 95 - 98°C

AVCO-CATALYST LT 1A	0.7 - 1.0	g/l
AVCO-BLEACH LT 2B	0.7 - 1.0	g/l
H ₂ O ₂ (50%)	8 - 10	cc/l
Soda caustic (50%)	4.5 - 5	cc/l
AVCO-LUX HA	1	%

Run at 95 - 98°C for 45 - 60 minutes.

Drop bath and rinse at 70 - 80°C.

USE HIGHER DOSAGE AT LOWER LIQUOR RATIO

FULL BLEACH AT 80°C

AVCO-CATALYST LT 1A	1.5 - 2	g/l
AVCO-BLEACH LT 2B	0.7 - 1.0	g/l
H ₂ O ₂ (50%)	10 - 12	cc/l
Soda caustic (50%)	5 - 5.5	cc/l
AVCO-LUX HA	1	%

Run at 80°C for 60 minutes.

Drop bath and rinse at 70 - 80°C.