

AVCONTROL

ALKALI BUFFER FOR DYEING REACTIVE DYESTUFFS

AVCONTROL is an alkali donor and buffer preparation used for dyeing cellulosic fibres with reactive dyestuffs in jets, winches and jiggers.

SPECIFICATION:

Appearance	Inorganic alkaline buffer.
Chemical nature	Colourless, clear liquid.
Solubility	Soluble in water at any proportion
pH of 5 cc/l solution	App. 12.5
Density (at 25°C)	1.43 ± 0.02
Foaming	Solutions of AVCONTROL do not foam.
Compatibility	When using slightly hard water it is recommended to add a sequestering agent such as AVCO-POLYQUEST-RE. In general it is recommended to use soft water while dyeing. AVCONTROL is not compatible with products sensitive to high alkalinity.
Storage stability	When properly stored in closed container shelf life is at least 12 months.

PROPERTIES & USES:

1. AVCONTROL is a buffer preparation which controls the pH in the dyeing liquor through the whole dyeing process.
2. AVCONTROL is replacing usage of sodium carbonate (soda ash) and sodium hydroxide (caustic soda). Being an alkali buffer, it ensures a stable pH level, and consequently produces a very uniform fixation of the reactive dyestuffs onto cellulosic fibres.
3. Improvement of dyeing reproducibility.

Technical – Information

4. More level dyeing.
5. Shortening of dyeing process.
6. As AVCONTROL is a liquid product, it is very easy to handle and to dose it to the dyeing machines.
7. Use of AVCONTROL eliminates handling of big amounts of powdery soda ash (usage of AVCONTROL is about one quarter of the amount of soda ash).

APPLICATION:

Start the normal dyeing procedure. AVCONTROL is added to the dyeing liquor instead of alkali. Add AVCONTROL pre-diluted with pure soft water, all at once or in portions.

Quantity of AVCONTROL to be used varies according to shade depth, liquor ratio and type of reactive dyes.

Following are some guiding procedures:

Dyeing Vinyl Sulfone Reactive Dyes (Remazol)

1. Add dyestuffs and salt and run for 30 minutes at 40⁰ C.
2. Add first portion of AVCONTROL (10% of total amount) by linear dosing over 20 minutes.
3. Heat up to 60⁰ C by 1⁰C/min. and circulate for 10 minutes.
4. Add second portion of AVCONTROL (90% of the total amount) by progressive dosing (curve – 05) over 40 minutes.
5. Circulate at 60⁰ C for 40-45 minutes for final fixation.

Following are dosing recommendations of AVCONTROL according to V.S. dyestuffs concentration (liquor ratio 1:10):

V.S. Dyestuffs (%)	Salt (gr/l)	AVCONTROL (cc/l)
< 0.1	10	3
0.1 – 1.0	20	4
1.0 – 2.0	30 – 40	5
2.0 – 6.0	50 – 70	6
> 6.0	70 – 80	8

Dyeing MCT reactive dyes (PROCION):

1. Add dyestuffs.
2. Add salt while heating to 90⁰C (by 2⁰C/min).
3. Circulate at 90⁰ C for 30 minutes.
4. Cool down to 80⁰ C.
5. Add AVCONTROL by linear dosing over 30 minutes.
6. Circulate at 80⁰ C for 30 - 60 minutes for final fixation.

The information given in this bulletin is, to the best of our knowledge accurate. It is intended to be helpful is not to be considered a guarantee.

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Technical – Information

Following are dosing recommendations of AVCONTROL according to MCT dyestuffs concentration (liquor ration 1:10)

MCT-Dyestuffs(%)	salt gr/l	AVCONTROL (cc/l)
< 0.5	15	3
0.5 – 1.0	30	4
1.0 – 2.0	40	5
2.0 – 6.0	50 – 70	5.5
> 6.0	80 – 100	6

Application at low L:R:

When applied at low L:R processes (L:R 1:3 – 1:5) (Jigger) quantity recommendation of AVCONTROL should be increased by 30-50%.

SAFETY INSTRUCTIONS:

AVCONTROL is a corrosive alkaline material, and should be handled with care. Goggles and gloves should be worn during handling. When handling large quantities or cleaning spills, use also apron and rubber boots.