

Technical - Information

AVCO-PRINT ESO

SODIUM ALGINATE THICKENER

AVCO-PRINT ESO is an high viscosity, easy soluble alginate based thickener, used for printing of reactive dyestuffs on cellulose, rayon and wool fabrics and for disperse printing on delicate polyester fabrics. The thickener has fast swelling properties.

SPECIFICATIONS:

Appearance	Grained, light beige powder.
Chemical nature	Highly purified sodium alginate.
Ionic type	Anionic.
Solubility	Can be dispersed in water to produce thick pastes up to 4.5 – 5%.
pH (2.5% sol.)	7.5 - 9
Compatibility	<ol style="list-style-type: none"> 1. Can be used together with all chemicals and dyestuffs encountered in reactive printing. 2. Is not compatible with multi-valence metal ions, and strong acids and alkalis.
Storage	Stable for at least 12 months if stored in cool and dry place, in closed packages.

PROPERTIES & USES:

1. Produces viscous, long flow printing pastes with low shear sensitivity, and low sensitivity to electrolytes used in reactive printing.
2. The preparation of the stock thickening paste does not require a long swelling time. High speed mixing for 20 - 40 minutes is enough.
3. Produces brilliant prints with sharp definition and high colour yield.
4. Very easily removable from the printed fabrics with a normal washing-off process.
5. Suitable for printing reactive dyes on cotton, rayon and wool fabrics and for printing disperse dyes.
6. Can be used for all-aqueous and semi-emulsion printing pastes.
7. Suitable for dry curing at elevated temperatures (150 - 160°C). The ease of the removal of AVCO-PRINT ESO is not affected.

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APPLICATION:

1. Preparation of stock paste:

Water	945
AVCO-POLYQUEST KAL	5
AVCO-PRINT ESO	<u>50</u>
	1000

Add AVCO-POLYQUEST KAL to the water. Start high-speed mixing and sprinkle AVCO-PRINT ESO. Mix for 10 - 20 minutes, and continue with slow agitation for another 10 minutes (swelling time). Change back to high-speed mixing for another 10 minutes until the paste is homogeneous. It is possible to add the thickener with high-speed mixing, the pre-mix is stored overnight for swelling and remixed again for final dissolving with a high-speed mixer.

2. Preparation of semi-emulsion stock paste:

Water	X
AVCO-POLYQUEST KAL	1 – 2
AVCO-PRINT ESO (5%)	600 – 400
AVCO-PAL REP	5 – 15
White spirit	<u>150 – 300</u>
	1000

Prepare aqueous thickening of AVCO-PRINT ESO as in (1).

Add AVCO-PAL REP. The final step is adding white-spirit in small portions during high-speed mixing.

3. Preparation of printing paste:

To the stock paste add all ingredients and dyestuffs as recommended by the dyestuff manufacturer. Following is an example of printing paste suitable for printing "MCT" and "VS" dyestuffs.

Stock paste	X
Water	Y
AVCO-SON LL	15 - 30
Sodium-bicarbonate	25
Urea	<u>100 - 200</u>
	1000

Mix with a high-speed mixer until the paste is homogeneous.

To the printing paste, add the desired amount of dyestuff and mix well until it is fully dissolved. The printing paste can be stored for long storage times (2 - 4 weeks) if a suitable preserving agent is added (2 - 4 g/kg of AVCO-GARD PR), and depends on the type of dyestuffs used.