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L-450

Leveling agent for cotton

Due to the strong demand for upgraded quality the reactive dyestuffs are more and more widely applied. Most of the reactive dyestuffs are M.C.T, V.S and M.C.T + V.S (bifunctional) types. According to their primary and secondary absorption curves we can find that their leveling mechanisms are either salt-controlled type or/and alkali-controlled type. Therefore, for the safety of leveling dyeing, the salts or /and alkali must be dosed rationally.

Usually, the dyestuffs themselves without salt accompanied have very low affinities for cellulose. After adding salt, the dyestuffs will be easily salted out and form the spots on fabrics. Furthermore, the over-dosing of salt will reduce migration and consequently cause upleveling.

There is an additional problem that occurs with V.S-type dyestuffs. With the effects of alkali, the VS-type dyestuffs will lose their hydrophilic group (SO_3Na) and reduce their solubilities. In case of high concentration of salt, the dyestuffs will be agglomerated and cause dyeing spots and upleveling problems.

Besides, the existence of calcium or magnesium ions in the process water will also cause the dyestuffs to be agglomerated and thus reduce their solubility. The heavy metal ions such as copper or ferric ions will cause shades change. EDTA is widely used as sequestering agent, but some metal-complexed reactive dyestuffs will be sequestered also, and cause the shades changed again.

L-450 was developed to overcome all those troubles of upleveling dyeing.

General properties:

Appearance	:	Brownish liquid.
Composition	:	Special anionic surfactants.
Ionic nature	:	Anionic
pH (1% solution)	:	6 +/- 1
Solubility	:	Easy to dissolve in cold water

Special features:

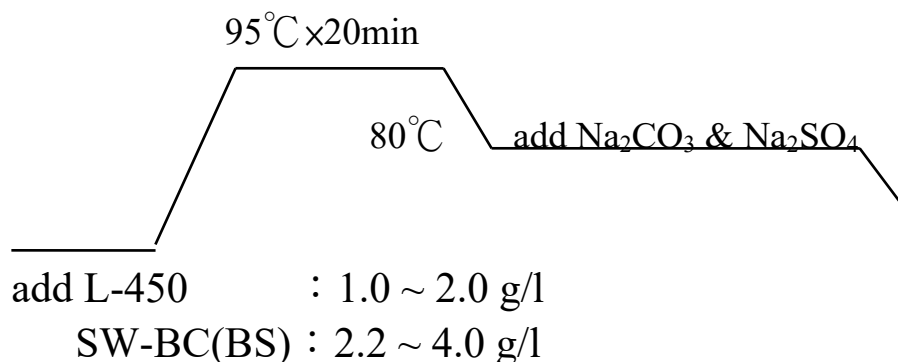
1. Dissolving aids of reactive and direct dyestuffs. To prevent the agglomeration of dyestuffs. To dissolve the dyestuffs in molecular form and easily diffuse them into fibers.
2. Can be used as dyeing retardant for high affinity dyes. L-450 can retard the primary absorption of these high affinity dyestuffs and thus achieve the leveling dyeing.
3. No negative influence on exhaustion rates.
4. Can be used as sequestering agent to metallic ions to prevent the agglomeration of dyes and shade changes.
5. Low foaming. Good compatibility with pH range.

Application:

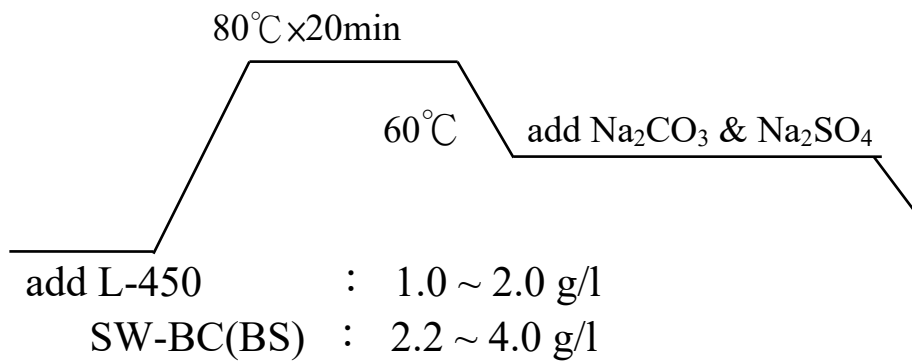
Process

1. Leveling

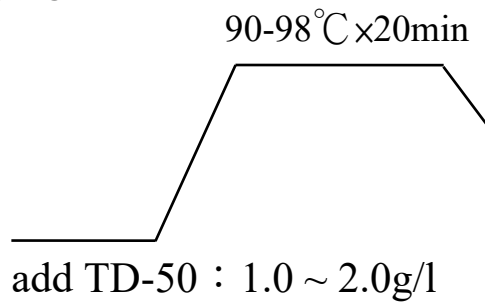
a. Dyes of 80°C type



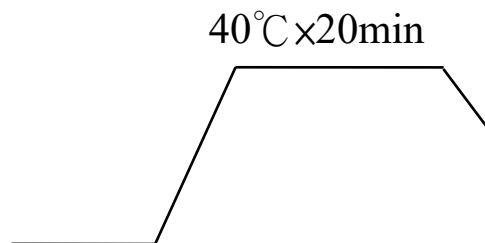
b. Dyes of 60°C type



2. Soaping



3. washing



Note: full evaluation is recommended prior to commercial usage.