

INFLUENCE OF PLASMATIC CORONA DISCHARGE IN DYEING OF DESIZED/MERCERISED FABRICS

M. J. Rios, N. Carneiro, L. Almeida, A. P. Souto,

Abstract

If a plasmatic CORONA discharge is applied in desized cotton fabrics, mercerisation is easily integrated in the chain of their wet preparation, meaning better whiteness and darker and cleaner colours in posterior direct dyeing, when compared with a mercerisation done in presence of an adequate wetting agent. This means that CORONA achieves fibre modifications which promote quicker penetration of the caustic soda inside the material. These results have great impact in the wet processing of cellulosic materials, meaning a reduction of pollution in the source, by eliminating the wetting agent, as well as an increase in mercerisation performance, with better whiteness and better dyeing effect in desized/mercerised materials.

Key words: Mercerisation, CORONA discharge, cotton dyeing, whiteness degree