

Deoxidation for oxidative unhairing with hydrogen peroxide

*Lu Xingfang**

Zhejiang Industry & Trade Polytechnic , Wenzhou 325003 , China

*Corresponding author, Email: sxzzlxf@163.com, Fax: 0577-88311700, Tel: 0577-88311700

Abstract: Hydrogen peroxide unhairing can't produce harmful material, and is one kind of green unhairing technique. However, because the resulting leather's strength will be lower, the application of this technique is restricted. The remained oxidizing agent in the skin can have a continue reaction with skin fiber, which will break the chemical coupling within skin fiber, and finally make the resulting leather's strength lower. A reducing process after oxidative unhairing will decrease oxidizing agent content remained in the skin, and lower the continue action between oxidizing agent and skin fiber. Sodium thiosulfate and sodium sulfite were used as reducing agent, respectively, in order to observe the effects of reducing agent and dosage on the hide substance content in spent liquor of reducing and liming process. The results proved that sodium sulfite produced much lower hide substance content in spent liquor than sodium thiosulfate did under the equal dosage. When the dosage of sodium sulfite was 2 % after hydrogen peroxide unhairing, the tensile strength of the resulting leather was enhanced, and almost did not lower along with extension of storage time.

Key words: Deoxidation; hydrogen peroxide; unhairing