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Accelerated Chamois Leather Tanning Process Using Oxidizing Agent

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Abstract. Chamois leather is a well known product, as it has specific uses for gasoline filtration; cleaning and drying optical equipment, spectacles, mirror, and vehicles; orthopedic leather; and garments. A weakness of chamois leather tanning practiced nowadays is its oxidation process taking relatively long time, i.e. up to two weeks. The application of an oxidizing agent may shorten the oxidation process in the chamois leather production. In this study, the uses of oxidizing agents for accelerating the chamois leather tanning were investigated. The experiment was carried out by tanning goat skin pickled pelt with rubber seed oil. In the tanning, oil oxidation process was modified by adding sodium percarbonate and hydrogen peroxide in the rotary drum for 6 hours. Three concentrations of each oxidizing agents were used and the properties of the chamois leathers were tested. This study demonstrates that oxidizing agents, especially hydrogen peroxide, could be applied in the chamois leather production for accelerating oxidation process of the tanning. The properties of the leather met the quality requirements for the chamois leather (SNI 06-1752-1990). Hydrogen peroxide of 6% was the best treatment obtained from the trial. Therefore, the oxidation process of chamois leather tanning could be shortened up to about three days by the application of the oxidation agent.

Keywords: acceleration, chamois leather, hydrogen peroxide, oxidation time, oxidizing agent, sodium percarbonate, tanning