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Effect of Drying Temperature on Quality of Cocoon

The purpose of the research was to study the effect of drying temperature on reelability percentage and mechanical properties (tensile strength and elongation) of raw silk. The experiments were carried out under the conditions of drying temperature range 60 – 100 ℃. The initial moisture content of cocoon was approximately 250-230 % dry basis (db). It was dried until down to a final moisture content of 10% db. After drying, dried silk cocoons were reeled with reeling machine. The results showed that the reelability percentage of all cocoon drying conditions were not significantly different ($p>0.05$). However, reelability percentage of dried cocoon was higher than the fresh cocoon. For mechanical properties, it found that dried cocoon at drying temperature of 60 and 80 ℃ resulted in a higher tensile strength of raw silk than that drying of 100 ℃ ($p<0.05$). While as, elongation of raw silk of dried cocoon at 100 ℃ was higher than that dried cocoon at 60 and 80 ℃.

Primary author: Mr DEEJING, Konlayut (Program of Physics, Faculty of Science and tecnology, Rajabhat Maha Sarakham University)

Co-authors: Mr SRILAKHONDEE, Sathaporn (Program of Physics, Faculty of Science and tecnology, Rajabhat Maha Sarakham University); Mr PONKEN, Tanachai (Program of Physics, Faculty of Science and tecnology, Rajabhat Maha Sarakham University)

Presenters: Mr DEEJING, Konlayut (Program of Physics, Faculty of Science and tecnology, Rajabhat Maha Sarakham University); Mr SRILAKHONDEE, Sathaporn (Program of Physics, Faculty of Science and tecnology, Rajabhat Maha Sarakham University)

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