

Bancha Tadchuen 2014: Quality Development of Glass Interleaving Paper.  
Master of Science (Forestry), Major Field: Forest Products, Department of Forest  
Products. Thesis Advisor: Associate Professor Somwang Khantayanuwong, Ph.D.  
68 pages.

The objectives of this study were to determine the effects of treated acid and pH level of interleaving paper on its glass stain retardability and properties. Handsheets of interleaving paper were treated with two factors consisted of acid types and pH levels. Two types of weak acids and a strong acid provided by Teppatana Paper Mill Co., Ltd., i.e., TEP01 and TEP02, and TEP03, respectively were used for treating the handsheets to achieve pH 4.0, 5.0 and 6.0. The treated handsheets were subjected to examining their glass stain retardability in a glass warehouse with an average temperature of 32 °C and relative humidity of 92 %. Glass stain occurrence was observed every 30 days until 120 days. Handsheet properties such as apparent density, air permeability, tensile strength, brightness and opacity were also assessed in accordance with the TAPPI standards. The results indicated that the handsheets treated with TEP02 at pH 4.0 showed the best performance for retarding the glass stain occurrence, i.e. there was no glass stain and fungal occurrence until 120 days. The mechanical and physical properties of treated handsheets were affected by acids and pH levels possibly due to acid hydrolysis partially weakening fibers and dissolving fines in the handsheets.

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