

MECHANICAL PROPERTIES AND FABRIC HANDLE OF HANSAN RAMIE. Ryu H.S., Hong J.M.* Department of Textile and Clothing Science, Seoul National University, Seoul, Korea.

Ramie is one of the favorite traditional fabrics in Korea. Especially, Korean loves to use ramie to make their seasonal clothes for Summer time due to its higher moisture-absorbing and transporting properties. Even though it is known that Hansan ramie has the best quality of the fiber, very few research work has been done on it to understand its physical and mechanical characteristics by the textile scientists.

In this experimental study, the effect of sizing on the physical and mechanical characteristics of Hansan ramie was carried out. The rice starch was chosen as sizing agent and the concentration was varied from 0.1% to 2.4%. To examine the characteristics of the sized and unsized Hansan ramie, KES-F system was incorporated and the primary hand value was calculated by KN-203 LDY. From this study, the following results were obtained which are very basic and important to understand its characteristics.

The wrinkle recovery angle of the fabric was gradually reduced with the increase of the concentration of sizing agent. The experimental result of KES-F system showed that the sizing has a serious effect on the bending and shearing properties of the fiber. Especially as the sizing agent concentration of the specimen is over than 1.2%, the shearing effect was evident on the fiber.

The result of the calculated primary hand showed that the effect of sizing was not considerable on the Koshi, Numeri and Fukurami. However, the sizing agent was able to be observed on the surface of sized ramie fabric by the use of the scanning micrographs.