DP 면직물의 방오성 증진을 위한 chitosan의 이용

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This study is of interest to improve soil release property of durable press finished cotton by using chitosan. Chitosan was depolymerized to obtain five different average molecular weight of 185,300 - 3,800. Mixtures of chitosan, dimethyloldihydroxyethyleneurea, catalyst, and wetting agent were applied in a single step. The padded samples were dried at 110°C for 3 min and cured at 150°C for 5 min. Soil release property, wrinkle recovery angle, physical properties, etc were evaluated and compared with DP finished one. Dyeing and scanning electron microscopy were used to investigate the distribution and penetration of chitosan.

The results showed that the soil removal value is improved as the molecular weight of chitosan is decreased below 59,000 irrespective of the washing temperature. The fabrics treated with chitosan in the range of 14,000 - 3,800 showed the highest improvement in soil removal and were significantly better than DP finished one.