

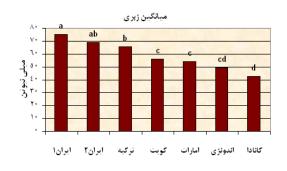
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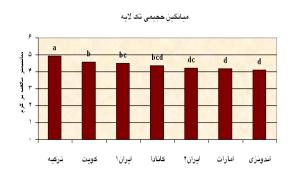
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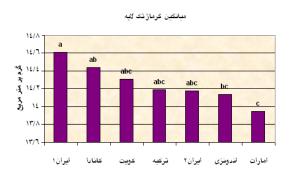
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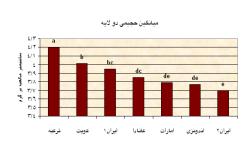


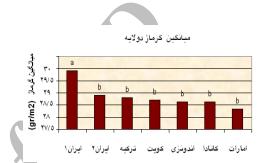






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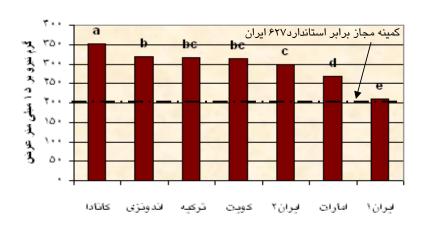




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Through Air Drying

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A Study on Domestic Facial Tissue Quality Vs. Common Imported Facial Tissue and Quality Improving Solutions

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Abstract

In order to keep and improve competitiveness of domestic facial tissue products, compared to those of imported ones, it is necessary to do qualitative study, find the weak points and propose the solutions. In this research, after sampling from products of two Iranian tissue manufacturers and similar imported facial tissues, a comparative survey on their quality was performed. The results show that Iranian facial tissues have suitable brightness, but they are rougher and have less wet and drystrength and less bulk. Knowing the fact that Iranian producers use recycled fibers, the reason for better brightness may be more efficient deinking or using unprinted recycled paper. But, concerning undesirable properties, they are somehow related to the characteristics of incomplete processing recycled fibers. Therefore, in order to improve the product quality, an approach can be better recycled fiber processing. In this respect, longer soaking specially under alkaline conditions and also a gentle refining, can cause better swelling of fibers and make their characteristics closer to virgin fibers. On the other hand, regarding the product roughness, using softening chemicals in wet-end or before Yankee cylinder, improving creping procedures and also "Through Air Drying" technique can be effective solutions. Also, using multi-layer head box, in order to use strong long fibers as under-layer and short soft hardwood fibers on top layer may be advisable.

Keywords: Tissue paper, Quality control, Recycled fibers, Chemical softener, refining, creping