

**The effect of chemical treatments and mechanical equipment to obtain aesthetic effects for fabrics**

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**Abstract:**

The aim of this research is to apply chemicals and mechanical treatments to the industrial fabrics under study in order to obtain aesthetic effects of the fabrics and to determine the best method used for that.

The use of treated chemicals and mechanical equipment is one of the best methods to reshape the surface of the material and use the artistic and technical treatment of the surface of the material in an innovative way, as the researcher did through the research. This is what the researcher did by using different chemical treatments to obtain results and effects on the fabrics under study and to choose the best one. This research is considered one of the experimental researches that aims to identify the best chemicals and mechanical treatments, which achieves the best functional and aesthetic properties of the produced fabrics. And it deals with the production of fabrics with an aesthetic shape from different effects and also with functional and aesthetic properties that serve the final product. After conducting chemical and mechanical treatments, different effects were obtained. Effects such as burning resulting from sulfuric acid were obtained, which gave a different effect on the fabrics under study. Also, through the use of sodium chloride, wrinkling and ruffle effects were obtained for the fabrics. And from the mechanical treatment, it gave the effect of the Pleated fabric in different sizes.

**Research problem:** The research problem is determined by studying the properties of the fabrics used under study and the effect of the treated chemicals and mechanical equipment on them to obtain different aesthetic effects for the fabrics under study and to choose the best one. In order to take advantage of the resulting effect on these fabrics and employ them in fabrics to meet the requirements of the aesthetic form and the functional purpose of them, and determine this after comparing the results of tests for the properties of the fabrics before and after processing to determine which properties can be utilized.

**Objective:** -Determine the best chemical treatments and the mechanical equipment used to produce a different aesthetic effect on the fabrics. -Benefit from the different aesthetic effects on fabrics industry.

**Significance:** 1- Choosing suitable fabrics for clothes from industrial fabrics and their mixtures, which are spread on a large scale. 2-This research aims to identify the best chemical treatments and mechanical equipment to achieve the best functional and aesthetic properties of the produced fabrics. It deals with the production of aesthetically pleasing fabrics with different effects, as well as functional and aesthetic properties that serve the final product. 3-The aim of the research is to apply chemicals to the industrial fabrics under study in order to achieve the main purpose, which is the occurrence of aesthetic effects on the fabrics under study and to determine the best equipment used.

**Research Methodology:** The research follows the analytical method and the experimental method

**Major Results:** -After conducting chemical and mechanical treatments, aesthetic effects were obtained for the used fabrics required for research from sodium chloride wrinkling and ruffle effects were obtained for the fabrics, and from the mechanical treatment, as well as effects such as burning resulting from sulfuric acid, And from the mechanical treatment, it gave the effect of the Pleated fabric in different sizes.

-The major result of this research is to apply chemicals to the industrial fabrics under study in order to achieve the main purpose, which is the occurrence of the aesthetic effects and to determine the best method used for the occurrence of the different effects of the fabrics

**Keywords :**

chemical treatments-mechanical -Fabrics

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