

## **Using of factory waste of dyed cotton yarns in the design of shirt fabrics and its effect the properties of fabrics, depending on the design programs to simulate the final product**

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### **Abstract:**

The yarn and textile factory waste is a wasted value, which constitutes an economic burden on manufacturers. In addition, it occupies a large area of the factory space to store it, where the use of these yarns can be used to produce new fabrics with unconventional designs, in line with the general taste of the consumer. Which benefits the manufacturer.

The weaving process and the dyeing process are the basic process for producing fabrics that can be used for the purposes for which they are manufactured, and in those two stages, the threads are overlapped according to the proposed weaving structure (design).

Just as the efficiency of the weaving process and its quality are related to the efficiency of the preparation, the quality of the produced fabrics also depends on the nature of the fabric composition used, in addition to the stability of the tensile strength of the threads on the loom used, which affects the quality level of the produced fabric. As for dyeing and colors, they reflect the nature and taste of the user, which is the main focus in the design of fabrics.

### **Keywords:**

Use of factory leftovers, cotton threads, shirt fabrics