The results were allocated to the presence of statistically significant differences between the samples due to the difference of each of the The factors of tissue composition, type of material and the degree of concentration of the treated substance when Level (α0005) where the results were in favor of 100% cotton samples and the treated With a concentration of 30% of silica nanomaterials with the texture of Atlas 5 in terms of Its ability to increase the absorption time of the chemotherapy substance and in relation to the results of resistance Bacteria, the treated samples gave a good degree of resistance to both positive and . bacteria Gram-negative, although the samples differed in terms of histological composition, weight and Mixing ratios, but these differences did not show an impact on the results. Key words: nano – medical clothing – chemotherapy