

improvement surface appearance of low Carat Gold jewelry with chemical and electrochemical treatment

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Abstract

- Surface treatment and finishing technology in the manufacture of golden jewelry has gained a broader meaning than in the past as it is no longer just a result of the recent manufacturing process, but an important and inherent process in the jewelry industry, and is determined by the entire production process. Surface and finish are synonymous with quality.

- The process of treatment gold jewelry surfaces, is the last step in the manufacture and production of golden jewelry, and the surface treatment gives product's final appearance that fits with the design, and that determines the quality of the jewelry product, and is therefore the first factor in attracting the user's attention.

- There are several cases of surface treatments such as polishing and electropolishing, where the surface must have a high degree of reflection, and the color enrichment of alloys and making Texture with sanding (sand blasting) or drilling or hammer and other processes, and must know the jewelry designer process options Surface treatment and finishing when designing new models, as surface treatment is an integral part of jewelry ornaments design.

- We now realize that the greater the attention to the quality of the gold jewelry surface at each step of production, the finishing process will be simpler and less costly to obtain the required quality that meets the market needs with user satisfaction as the most important element and the ultimate goal of design and production processes.

- The final finishing process depends on providing accurate information and practical advice that can be easily used by gold makers or production engineers. If we exclude the initial processes that are carried out to prepare gold jewelry for finishing, there are three basic systems for processing and finishing used in the production of golden jewelry are: -

- Mechanical finishing (polishing and other surface texture)
- Chemical treatment (enrichment and purification of alloy surface)
- Electrochemical treatment (Electroplating and polishing)

Keywords:

Gold Carats -Surface treatment - Electropolishing- Surface Enrichment