

Specification of Competency Standards of the Watch & Clock Industry

Unit of Competency

Functional Area: Manufacturing

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| Title | Master the Electroplating Technique for Parts of a Complete Watch |
| Code | 104823L3 |
| Range | This unit of competency (UoC) is applicable in the production department of timepiece manufacturing companies. It covers the abilities to master the standard and method of electroplating a complete watch, and carry out general electroplating of complete watches according to the guidelines and safety regulations. |
| Level | 3 |
| Credit | 9 (for reference only) |
| Competency | <p>Performance Requirements</p> <ol style="list-style-type: none"> 1. Understand the basic knowledge of electroplating <ul style="list-style-type: none"> • Know about the objectives of dial treatment for timepiece products • Understand treatments and basic procedures of electroplating, e.g.: <ul style="list-style-type: none"> • Electroplating • Organic spray • Chemical plating • Understand the treatment procedure, conditions and important points before electroplating, e.g.: <ul style="list-style-type: none"> • Polishing, grinding • Different cleaning and grease-releasing materials • Understand the different electroplating procedures for different metals • Master the electroplating standard and requirements <ul style="list-style-type: none"> • Know about the categories of gold-plating solutions <ul style="list-style-type: none"> • By the pH degree of the solution • By the content of cyanide • By the valence of gold ion • Master the colour standard and features of gold-plating for a case • Know about the features of silver-plating • Know about the features, process and noting points for rhodium-plating • Understand the application of pure palladium-plating or palladium alloy plating in the electroplating of timepiece • Know about the features of palladium-plating • Understand other types of electroplating <ul style="list-style-type: none"> • Ruthenium-plating • Electroplating of tin alloys • Understand the EEC nickel prohibition ordinance and its effect on timepiece electroplating • Know about the testing methods in relation to the EEC nickel prohibition ordinance • Master the inspection and testing for electroplated layers 2. Electroplate <ul style="list-style-type: none"> • Carry out general electroplating of a complete watch according to working guidelines and safety regulations • Master the operation of electroplating equipment • Improve the effect of electroplating <ul style="list-style-type: none"> • Master the advanced technology for treating metal dials • Know about the significance of environmental protection during the process of electroplating 3. Exhibit professionalism <ul style="list-style-type: none"> • Carry out electroplating of timepiece products according to the Dangerous Goods Ordinance and Environmental Laws and Regulations • Carry out electroplating according to the safety guidelines and code of practice of the Occupational Safety and Health Ordinance |
| Assessment Criteria | <p>The integrated outcome requirement of this UoC is the ability to:</p> <ul style="list-style-type: none"> • Carry out general electroplating of a complete watch according to working guidelines and safety regulations as well as the standards and requirement. |
| Remark | |