

**Specification of Competency Standards**  
**for the Manufacturing Technology Industry**  
**Unit of Competency**

Functional Area - Product Manufacturing

Title	Arrange surface treatment, coating and texturing of tooling
Code	106414L3
Range	This unit of competency is applicable to the production department of the corporation of tooling manufacturing industry. Practitioners should be capable to understand the knowledge of surface treatment, coating and texturing of tooling, arrange qualified professional corporation to handle surface treatment, coating and texturing of tooling for processing tooling and parts.
Level	3
Credit	3 (For Reference Only)
Competency	<p>Performance Requirements</p> <ol style="list-style-type: none"> <li>1. Understand the processing of surface treatment, coating and texturing of tooling <ul style="list-style-type: none"> <li>• Understand the processing principles, characteristics, applications, methods and techniques of surface treatment, coating and texturing of tooling</li> <li>• Recognise the processing equipment and the structure, specifications and range of surface treatment, coating and texturing of tooling</li> <li>• Understand the commonly used methods, techniques and usages of surface hardening, such as carburization, nitriding, flame hardening and high frequency induction hardening</li> <li>• Recognise the methods, usages and related equipment of various coating of tooling,</li> <li>• Recognise the methods, usages and related equipment of various texturing of tooling, such as Laser texturing and chemical texturing</li> <li>• Recognise the functions and applications of all kinds of insert coating of tooling, such as Physical Vaporize Deposition and CVD Coating</li> </ul> </li> <li>2. Carry out processing of surface treatment, coating and texturing of tooling <ul style="list-style-type: none"> <li>• According to different quality requirements and material specifications, select the appropriate surface treatment, coating and texturing of tooling</li> <li>• Evaluate the equipment and ability of the corporation of professional surface treatment, coating and texturing, arrange suitable manufacturers to carry out surface treatment, coating and texturing of tooling</li> <li>• According to different requirements of surface treatment, coating and texturing, preliminary assess the appropriate parameter settings</li> <li>• Determine whether the quality meets the specifications after the processing of surface treatment, coating and texturing</li> <li>• Determine the types of defects of the surface treatment, coating and texturing</li> <li>• According to the tooling life and other specifications requirements, select the coating service providers that have enough equipment and processing skills</li> </ul> </li> <li>3. Professional handling of arranging surface treatment, coating and texturing of tooling <ul style="list-style-type: none"> <li>• With the design drawings, quality requirements, material specifications and production efficiency, arrange suppliers to carry out surface treatment, coating and texturing</li> </ul> </li> </ol>
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> <li>• Capable to determine whether the plate is suitable for surface treatment, coating and texturing.</li> <li>• Capable to arrange suitable manufacturers for carry outing surface treatment, coating and texturing.</li> <li>• Capable to determine whether the quality meets the specifications after the processing of surface treatment, coating and texturing</li> </ul>
Remark	