

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

Functional Area - Product Manufacturing

Title	Carry out coating of plastic parts
Code	106435L3
Range	This unit of competency is applicable to the production department of the plastic industry corporation. Practitioners should be capable to recognise all kinds of coating technologies of plastic parts and carry out coating of plastic parts
Level	3
Credit	6 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Understand relevant knowledge of all kinds of coating of plastic parts</p> <ul style="list-style-type: none"> • Recognise the technology principle, application and end-effects of all kinds of spray coating • Recognise the technology principle, methods, operation techniques and characteristics of spraying • Recognise the composition and characteristics of all kinds of paints • Recognise the functions and effectiveness of spray gun • Recognise all international standard test of coated products • Recognise relevant environmental protection regulations and legislation of coating technology • Recognise environmental energy saving production processes • Understand all kinds of effects of spraying techniques, such as mirrors, sand face and the semi-light effects • Understand all kinds of effects of coating technology, such as smooth surface, semi-smooth surface and matte effect • Understand the procedure of spraying • Understand the colour processing of coating technology • Understand the temperature requirements of all kinds of coating solidification • Understand all kinds of coating categories, function and applications, such as primer or top coating • Understand the usages and techniques of all kinds of paints • Understand the method of adjusting the paint dilution rate • Understand the safety using methods of organic solvents and paint thinners • Understand the operation techniques and preventive maintenance of all kinds of spraying facilities • Understand the techniques of adjusting the air pressure and paint output flow <p>2. Apply coating of plastic parts and carry out evaluation and improvement</p> <ul style="list-style-type: none"> • Determine whether the product is suitable for coating • Determine suitable plastic substrates for coating methods and materials • Apply the coordinate paint in accordance with different plastic substrates, such as hard and soft plastics • Apply suitable paint in accordance with different temperatures that plastic parts can withstand, such as high temperature solidification, low temperature solidification and UV solidification paint • Master the entire process of spray coating • Apply all kinds of paint and carry out coating of plastic parts • Estimate the amount of different paint that all products used • Analyse the problems and defects, such as dust/ lint, orange wrinkles peel structure, colour changes and uneven colour

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	<ul style="list-style-type: none"> • Compile relevant production guidelines and detailed arrangements in accordance with all kinds of coating technologies and techniques of plastic parts • Analyse the quality problems of coating of plastic parts and carry out improvement • Master, self-adjust and coordinate the entire spray coating technology, so as to reach the desired effect of products <p>3. Professional handling of coating of plastic parts</p> <ul style="list-style-type: none"> • Follow safety guidelines and related codes of practice, in accordance with the requirements of technologies and techniques, product specifications and production efficiency, carry out coating of plastic parts
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> • Capable to operate the relevant coating technologies and techniques • Capable to fine-tune the relevant technologies and techniques in accordance with the workpiece material and product requirements • Capable to solve the general operation problems of the equipment of coating, carry out preventive maintenance and continuous improvement
Remark	