

COGSM12

Unit 12: Carry out Etching Operations in SignMaking Environment



Overview

This unit covers the skills and knowledge that you will need to etch materials and products.

This involves checking and confirming that you have the correct resources for the etching operation, identifying and pre-marking areas to be etched, and then carrying out the etching operation according to specification, following approved quality and company procedures.

The unit also deals with reporting any problems to the relevant personnel, and finally dealing with the etched product appropriately.

This unit deals with the following:

1. Carry out etching operations

During this work you must take account of the relevant worksite operational requirements, procedures and safe working practices AS THEY APPLY TO YOU.

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Performance criteria

- You must be able to:*
- P1 Carry out the etching operations in line with legal requirements, workplace policies, manufacturers' instructions, work instructions, Health and Safety and environmental
 - P2 Check and confirm that you carry out the work with the quality specifications, work instructions and any etching procedures relevant to the operations
 - P3 Ensure that you have the necessary resources for the etching operation, including suitable Personal Protective Equipment
 - P4 Identify template shapes for masking, measure and, where necessary cut, and then position on the material to be etched
 - P5 Identify any defects and problems with the surface to be etched prior to operation and inform the relevant personnel of any defects and problems
 - P6 Confirm that the areas to be etched are identified and pre-marked using an accepted method
 - P7 Protect the surrounding areas from damage
 - P8 Carry out the etching operation according to work instructions and safe operating/quality procedures
 - P9 Report any problems promptly to the relevant personnel
 - P10 Deal with etched products and complete any necessary documentation

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Knowledge and understanding

You need to know and understand:

- K1 What the relevant Health and Safety and environmental requirements are and how to follow them
- K2 Why it is important to keep the work instructions safe and accessible
- K3 The importance of complying with the workplace policies, manufacturers' instructions, work instructions, Health and Safety and environmental policies
- K4 What the consequences to you and to others are of not following workplace policies, manufacturers' instructions, work instructions, Health and Safety and environmental requirements
- K5 What the hazards associated with your working environment are and the risks they pose
- K6 When and why it is necessary to wear personal protective equipment (PPE)
- K7 How to obtain and select appropriate personal protective equipment (PPE)
- K8 What the relevant authorisation procedures are and how to follow them
- K9 Who the relevant personnel are
- K10 What problems may occur
- K11 What action to take if there are problems
- K12 How to check that you have the correct work instructions and any relevant etching procedures and quality specification
- K13 How to ensure that you have the appropriate equipment, tools, materials, techniques and methods needed to complete the activity
- K14 How to ensure that masking materials are appropriate for the work to be completed and what the consequences are of not using appropriate masking materials
- K15 How to accurately check the measurements and how to draw shapes onto a suitable masking material
- K16 How to position masking shapes
- K17 The types of defects and how to identify them
- K18 What acceptable pre-marking methods are
- K19 What the specified requirements and positioning and quality tolerances are and why these are important
- K20 How to carry out the etching operation
- K21 What is regarded as acceptable quality
- K22 Why etching agents are used and how and when to use them
- K23 How to deal with etched products
- K24 When to complete documentation and why it must be completed accurately

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Additional Information

Glossary

Types of Surface Defect: Visual, tactile (touch)

Types of Rectification Methods: Manual, automated

Masking Methods: Physical, photographic

Etching Agents or Methods: Chemical, abrasive

Etching Equipment: Sealed liquid, sealed air

Relevant Personnel: Line manager, supervisor, team leader etc.

Relevant Health and Safety and Environmental Requirements: What your responsibilities are in respect of health and safety and environmental requirements and legislation, regulations, safe working practices, local, national and organisational/site specific procedures

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