

PRODUCE A COMPOSITE PRODUCT

Duration:	5 days
Target:	Laminators / candidates competent in NQF Level 1
Prerequisite:	Basic Literacy and Numeracy [ABET 4]
NQF Info:	NQF Level 2
Qualification:	National Certificate in Polymer Composite Fabrication NQF Level 2
Credits:	38
Certification:	merSETA-accredited Plastics SA Certification

Unit Standards

- Demould a polymer composite product [110285]
- Identify and work with material as required for polymer composite fabrication [110289]
- Fabricate a polymer composite product [110281]
- Prepare mould for polymer composite fabrication [110279]
- Assemble moulded components and attach fittings [110290]
- Prepare damaged polymer composite product for repairs [110278]

Objective of Learning Programme

To enable learners to identify and work with materials required to fabricate and prepare a polymer composite product, to demould a polymer composite product, and identify, solve and record faults and problems.

Outcomes

At the end of the learning programme, learners will be able to:

- Understand and explain the fundamentals of composites fabrication
- Identify and discuss the role and properties of materials used in the manufacture of polymer composite products
- Determine ratio, measure and mix materials for composite production in contact moulding
- Transport and store materials; Report problems, discuss issues and record data
- Locate, identify, transport and mount the correct mould for the required product
- Identify, locate and correct common defects and deformities on mould
- Clean and assemble mould, and apply release agent
- Record and report all identified problems and faults
- Tailor the reinforcement to fit the mould; Apply the gelcoat to the mould; Use the resin and reinforcement to make a laminate
- Demould and trim the component
- Clarify what needs to be done; Collect tools, equipment and consumable items; Prepare damaged areas and clean
- Test and check final surface preparation; Clean and store equipment, clean workplace
- Report faults, problems and issues relating to the preparation process; Organise correct tooling for fittings
- Understand the use of fastening devices; Follow regular, consistent work patterns

Contents

- Introduction to polymer composite fabrication
- Identify and work with materials
- Prepare mould for polymer composite fabrication
- Fabricate a polymer composite product
- Prepare damaged polymer composite product for repairs
- Assemble components and attach fittings

Assessment and Certification

- Workplace Experience Assignments to be submitted within two weeks following training. A digital Plastics|SA Certificate of Competence is issued to successful candidates.
- Relevant credits may be awarded to successful learners upon merSETA due approval process.