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**SOUTH AFRICAN QUALIFICATIONS AUTHORITY
REGISTERED UNIT STANDARD:**

Apply knowledge and understanding of structural material in the roofing industry

SAQA US ID		UNIT STANDARD TITLE		
263795		Apply knowledge and understanding of structural material in the roofing industry		
ORIGINATOR		REGISTERING PROVIDER		
SGB Forestry				
QUALITY ASSURING BODY				
-				
FIELD			SUBFIELD	
Field 01 - Agriculture and Nature Conservation			Forestry and Wood Technology	
ABET BAND	UNIT STANDARD TYPE	OLD NQF LEVEL	NEW NQF LEVEL	CREDITS
Undefined	Regular	Level 4	NQF Level 04	6
REGISTRATION STATUS		REGISTRATION START DATE	REGISTRATION END DATE	SAQA DECISION NUMBER
Registered		2009-05-13	2012-05-13	SAQA 0181/09
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT		
2013-05-13		2016-05-13		

In all of the tables in this document, both the old and the new NQF Levels are shown. In the text (purpose statements, qualification rules, etc), any reference to NQF Levels are to the old levels unless specifically stated otherwise.

This unit standard does not replace any other unit standard and is not replaced by any other unit standard.

PURPOSE OF THE UNIT STANDARD

People credited with this unit are able to demonstrate an understanding of the characteristics and properties of material used for structural design in roofing. Competent learners are able to:

- Name and describe the different materials used in roofing.
- Identify the structural properties and non-compliance of timber and steel.
- Identify the structural connectors and their application.
- Differentiate between the advantages and disadvantages of the different structural materials.
- Identify the specification criteria.

LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

Communication and Mathematical Literacy at NQF Level 3.

Recognition of Prior Learning:

Persons who are able to demonstrate workplace experience comparable or equivalent to the competence requirements of the unit standard will be given credit, in line with assessment processes.

UNIT STANDARD RANGE

N/A

Specific Outcomes and Assessment Criteria:

SPECIFIC OUTCOME 1

Describe the different materials used in roofing.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

Materials are described in terms of their strengths and weaknesses for a given use in roofing.

ASSESSMENT CRITERION 2

Timber and steel that is suitable for roofing are visually identified from a range of available materials.

SPECIFIC OUTCOME 2

Identify the structural properties and non-compliance of timber and steel.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

Roofing material is identified in terms of grade and size.

ASSESSMENT CRITERION 2

Timber for structural design is identified and categorised into suitable and unsuitable categories.

ASSESSMENT CRITERION RANGE

Unsuitable timber includes:

- Black Cross, cup, twist, bow, spring, warp, wan.

ASSESSMENT CRITERION 3

Timber grading is described in terms of the methods used and types of timber that can be graded.

ASSESSMENT CRITERION 4

Timber grading is identified from specific grade markings.

SPECIFIC OUTCOME 3

Identify the structural connectors and their application.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

The use of connections are differentiated for different forces.

ASSESSMENT CRITERION 2

The required hangers are identified to suit truss reactions.

ASSESSMENT CRITERION 3

The purpose of structural connectors is described in terms of the function performed in maintaining structural strength.

ASSESSMENT CRITERION 4

Alternate methods of providing connections are described in terms of their strengths and weaknesses.

SPECIFIC OUTCOME 4

Differentiate between the advantages and disadvantages of the different structural materials.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

The use of timber in structures is described in terms of advantages and disadvantages.

ASSESSMENT CRITERION 2

The use of steel in structures is described in terms of advantages and disadvantages.

ASSESSMENT CRITERION 3

The most suitable structural material is identified for a given roofing situation.

SPECIFIC OUTCOME 5

Identify the specification criteria.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

Criteria required are identified from relevant SANS Tables.

ASSESSMENT CRITERION 2

Specifications for protection of timber are identified and described in terms of the application and benefit.

ASSESSMENT CRITERION 3

Specifications for protection of steel are identified and described in terms of the application and benefit.

UNIT STANDARD ACCREDITATION AND MODERATION OPTIONS

- Anyone assessing a candidate against this unit standard must be registered as an assessor with the relevant ETQA.
- Any institution offering learning that will enable achievement of this unit standard must be accredited as a provider through the relevant ETQA.
- Moderation of assessment will be overseen by the relevant ETQA according to the moderation

guidelines and the agreed ETQA procedures.

UNIT STANDARD ESSENTIAL EMBEDDED KNOWLEDGE

Knowledge considered critical to the successful achievement of this unit is covered in the specific outcomes and assessment criteria.

UNIT STANDARD DEVELOPMENTAL OUTCOME

N/A

UNIT STANDARD LINKAGES

N/A

Critical Cross-field Outcomes (CCFO):

UNIT STANDARD CCFO IDENTIFYING

Identify different structural material used in the roofing industry and use in a compliant manner.

UNIT STANDARD CCFO WORKING

Work effectively with others and in teams.

UNIT STANDARD CCFO ORGANISING

Organise and manage oneself and one`s activities responsibly and effectively.

UNIT STANDARD CCFO COLLECTING

Collect, analyse, organise information about the different material and critically evaluate information on the proper use of each in context.

UNIT STANDARD CCFO COMMUNICATING

Communicate effectively using visual, mathematical and/or language skills.

UNIT STANDARD CCFO DEMONSTRATING

Understand the world as a set of inter-related parts of a system.

QUALIFICATIONS UTILISING THIS UNIT STANDARD:

	ID	QUALIFICATION TITLE	OLD LEVEL	NEW LEVEL	STATUS	END DATE
Core	66370	Further Education and Training Certificate: Roof Truss Technology	Level 4	NQF Level 04	Registered	2012-05-13

PROVIDERS CURRENTLY ACCREDITED TO OFFER THIS UNIT STANDARD:

This information shows the current accreditations (i.e. those not past their accreditation end dates), and is the most complete record available to SAQA as of today. Some Quality Assuring Bodies have a lag in their recording systems for provider accreditation, in turn leading to a lag in notifying SAQA of all the providers that they have accredited to offer qualifications and unit standards, as well as any extensions to accreditation end dates. The relevant Quality Assuring Body should be notified if a record appears to be missing from here.

NONE

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