



Australian Government

Assessment Requirements for MEM30007 Select common engineering materials

Release: 1

Assessment Requirements for MEM30007 Select common engineering materials

Modification History

Release 1. Supersedes and is equivalent to MEM30007A Select common engineering materials.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- identifying common engineering materials
- selecting materials for specific applications on at least two occasions
- verifying selected material as fit for purpose.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- common engineering materials
- classification of materials
- structure of materials
- physical properties of materials
- magnetic properties
- optical properties
- mechanical properties
- chemical properties
- materials testing methods including destructive testing and applications
- engineering applications of ferrous metals
- engineering applications of nonferrous metals
- engineering applications of polymers
- effects of mechanical and thermal processes on the properties of materials
- hazards and control measure associated with selecting common engineering materials including housekeeping.
-

Assessment Conditions

- Assessors must:
 - have vocational competency in selecting common engineering materials at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the Standards for Registered Training Organisations 2015 or its replacement and comply with the National Vocational Education and Training Regulator Act 2011, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible, assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
-

Links

Companion Volume Implementation Guides are available on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>