



Australian Government

Assessment Requirements for MSFFL3057 Select and fit diamond tools for concrete surface preparation and polishing

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSFFL3048 Select and fit diamond tools for concrete surface preparation and polishing.

Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- selected and fit appropriate diamond grinding and polishing tools to be used in planetary action concrete finishing equipment to meet the requirements of 2 different jobs.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- concrete surface preparation and polishing:
 - Australian Standards requirements
 - environmental protection and sustainability requirements
 - equipment types:
 - full set of single or twin segments (for when a flat floor finish is required)
 - half set of single or twin segments (for when flat floor finish is not required)
 - different diamond tool applications:
 - floor flattening and removing undulation (hard, medium and soft concrete)
 - removal of surface contaminants:
 - carpet glue
 - vinyl adhesive
 - epoxy paint
 - smoothing exposed aggregate
 - grinding exposed aggregate
 - concrete surface polishing (hard, medium and soft)
 - gloss levels (high, medium and low gloss)
 - hardness of material being ground (aggregate and sand abrasiveness)
 - the grinding and/or polishing pressure
 - bond types:
 - metal
 - resin
 - ceramic

- hybrid
- factors that influence wear:
 - hardness of the bond
 - diamond grit size
 - number of segments
 - presence of water
 - use of additional abrasives such as sand, silicone or carbide
 - quality of diamond tool being used
 - machine speed
 - operator experience
 - grit size
 - too small so surface contaminants, such as glue smears
 - too coarse leaving scratching and excessive diamond wear
 - bond
 - too soft, leaving machine marks and excessive diamond wear
 - too hard, resulting in glazed surface
 - not using hardest bond first
 - incorrect choice of segments could result in an uneven floor, excessive diamond consumption and overloading the planetary machine, scratches remaining in finished floor
- procedures and protocols for the recording, reporting and maintenance of workplace records and information.
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Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - concrete surface floors for polishing
 - equipment, tools and materials to complete tasks in the Performance Evidence
 - work orders
 - workplace procedures.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>