

Hand spread asphalt Learner Workbook



TRAINER'S MARKING GUIDE

RIICBS202E –
Hand spread asphalt



This resource was developed by:



Learner Name: _____

Student Number: _____ Date: _____

Contact Details

Candidate's details	
Name:	
Address:	
Student Number:	
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Email:	
I.D supplied / USI No ?	
Signature:	

Trainer/Assessor's / Supervisor details	
Name:	
Company/registered training organisation:	
Phone number:	
Email:	
Assessment location:	
Assessment date:	
Signature:	

I declare that:

Student Signature: Date:	This submission is all my own work and has not been copied nor does it violate the material that is listed under the Statement on Plagiarism and Academic Integrity rules.
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Training support materials

Training package: Resources and Infrastructure Industry Training Package

Unit of competency: RIICBS202E Hand spread asphalt

Application / Context of Assessment

This unit describes the skills and knowledge required to hand spread asphalt in civil construction.

It applies to those working in operational roles. They generally perform routine tasks and work under direct supervision.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

Civil construction

Notes to Candidate:

Practical components of this assessment may be filmed on hand spread asphalt. It applies to those working in operational roles. They generally perform routine tasks and work under direct supervision along with hand spread asphalt on at least two different occasions including;

hand spreading at least 5m² of asphalt (per patch) to line and level without segregation, including:

- ~ two patches over 50mm thick, each with a different type of asphalt
- ~ two patches under 50mm thick, each with a different type of asphalt.

- working with a paver to lay at least 100 lineal metres of longitudinal joint and two transverse joints.

Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

Include access to:

- asphalt hand spreading equipment
- personal protective equipment
- 2 different types of asphalt mix
- be conducted in a safe environment; and,
- be assessed in context of this sector's work environment; and,
- be assessed in compliance with legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- confirm consistent performance can be applied in a range of relevant workplace circumstances.
- Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work environment* provided it is realistic and sufficiently rigorous to cover all aspects of this sectors workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- If applicable access to paver and delivery support truck for asphalt material

Summary of Practical tasks to be performed.

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- hand spread asphalt on at **least two different occasions**, including:
 - hand spreading at least 5m² of asphalt (per patch) to line and level without segregation, including:
 - ~ two patches over 50mm thick, each with a different type of asphalt,
 - ~ two patches under 50mm thick, each with a different type of asphalt,
- work with a paver to lay at least 100 lineal metres of longitudinal joint and two transverse joints.

Along with;

- locating and applying legislation, documentation, policies and procedures required for hand spreading asphalt.
- working with others to complete the hand spreading of asphalt that meets required outcomes, including:
 - organising work activities to meet task requirements,
 - communicating with others to receive and clarify work instructions,
 - using a range of communication techniques and systems,
 - using signage to advise others of work activity and exclusion zone,
 - identify, report and record hazards and risks,
 - clean, check, perform maintenance on and store equipment,
 - complete housekeeping activities.

Equipment description

- asphalt hand spreading equipment
- personal protective equipment
- 2 different types of asphalt mix
- If applicable access to paver and delivery support truck for asphalt material

Assessor's qualifications and assessment conditions

To conduct valid assessments for this qualification the assessor must meet the assessor requirements outlined in the assessment conditions.

The assessment conditions and assessor requirements for this unit of competency can be viewed at www.training.gov.au/Home/Tga and are also outlined in the mapping document prepared by Easy Guides.

Assessors should access the assessment conditions prior to undertaking assessments. The assessment conditions and the assessor requirements form part of the assessment tool.

Please note: Units of Competency and Assessment Requirements change frequently; it is the Assessor's responsibility to ensure they meet the criteria for the assessment to be valid.

Assessment Guidelines

This assessment is designed to be used with the learning materials developed by Easy Guides Australia. The assessor must be satisfied the applicant has successfully demonstrated each aspect of the Unit of Competency. The answers provided are model answers only. The written assessment determines the candidate's underpinning knowledge.

This assessment can be customised to suit your requirements. When customising this assessment, you must ensure all performance criteria and knowledge evidence are addressed to maintain the integrity of the assessment.

Reasonable adjustments to assessments should be made to accommodate candidates with special needs.

Where ever a practical task is demonstrated it should be filmed and document in the assessment sheet of the file name, location of file store and to whom the assessment video is associated to.

Determining competency

Evidence from the knowledge assessment together with evidence from the practical assessment should be used by the assessor to determine the candidate's competency.

Right of appeal

On completion of the assessment:

- the candidate is to be advised of assessment result
- the candidate might disagree with the result of the assessment
- the candidate has the right to challenge the assessment result
- an unsuccessful candidate may apply to the R.T.O. for re-assessment.
(Please note: applications for reassessments are subject to the RTO's policies and procedures)

Duration of Assessment: Single session or over a period of time.

Assessment Date: _____

Knowledge Assessment



The assessor must be satisfied the candidate has successfully demonstrated each element and performance criteria contained in the Unit of Competency.

Knowledge Assessment Instructions



1. This assessment should be completed in writing (pen not pencil). However, where necessary it may be undertaken verbally. If verbal assessment is undertaken the candidates' responses must be clearly recorded by the assessor. The assessor must clearly note on the assessment that it was undertaken verbally.
2. Candidates should be allowed 10 minutes reading time before commencing the assessment and a further 180 minutes to complete the assessment.
3. The assessment should be completed in a quiet area free from distraction.
4. The assessment is to be completed without the assistance of learning resources. Students may ask the assessor for assistance to clarify questions they do not understand.
5. A pass mark of 90% (63/70) must be achieved for a satisfactory result. The assessor must provide feedback to the candidate to clarify any answers deemed to be incorrect.
6. Reasonable adjustment to the assessment is to be made by the assessor where deemed necessary.



Knowledge Assessment



Question 1

What does the term "hand spread asphalt" refer to in civil construction?

It involves:

- The automated application of asphalt mixtures using specialized machinery.
- The manual application of asphalt mixtures by workers.
- The use of asphalt in gardening and landscaping.
- The production of asphalt mixtures in a factory setting.

PC 1.1



Answer may include but is not limited to: b. The manual application of asphalt mixtures by workers.

Question 2

What are some of the key tasks associated with the role of hand spreading asphalt in civil construction?

- Planting trees and shrubs in the work area.
- Managing office paperwork and documentation.
- Distributing asphalt evenly with hand tools and ensuring proper compaction.
- Supervising the installation of electrical wiring on the construction site.

PC 1.1



Answer: c. Distributing asphalt evenly with hand tools and ensuring proper compaction.

Question 3

When hand spreading asphalt in civil construction, the following tasks are typically performed by a worker? Choose all the correct tasks of a hand spread asphalt worker would do.

- Material handling
- Pouring and spreading
- Leveling and smoothing
- Edge work
- Heat management
- Working with the paver operator

PC 1.1



Answer may include but is not limited to: All of the above (a. Material handling, b. Pouring and spreading, c. Leveling and smoothing, d. Edge work, e. Heat management, f. Working with the paver operator).

Question 4

Choose the correct sequence of the different layers in asphalt.

Arrange the layers in an asphalt pavement structure from the bottom to top.

- Subbase, Surface Course, Wearing Course, Base Course, Subgrade
- Subgrade, Base Course, Subbase, Surface Course, Wearing Course
- Base Course, Subbase, Subgrade, Surface Course, Wearing Course
- Subgrade, Subbase, Base Course, Surface Course, Wearing Course

Answer may include but is not limited to: d. Subgrade, Subbase, Base Course, Surface Course, Wearing Course

Question 5

i). In civil construction, what is asphalt?

Asphalt is?

- A type of concrete used for road construction.
- A sticky black liquid found in natural deposits.
- A mixture of graded aggregates and a binder that is commonly used for paving roads.
- A type of heavy machinery used in construction.

Answer: c. A mixture of graded aggregates and a binder that is commonly used for paving roads.

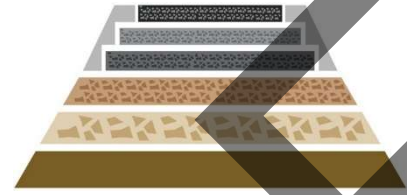
ii). What are the key components of asphalt commonly used in road construction?

Is it:

- Water, cement, and bricks.
- Aggregates, crushed rock, sand, mineral fillers, and gravel.
- Wood, steel, and glass.
- Plastic, rubber, and metal.
- Aggregates, crushed rock, sand, mineral fillers, and gravel.

Answer: b. Aggregates, crushed rock, sand, mineral fillers, and gravel.

PC 1.1



PC 1.1



Practical Assessment – Check List

The skills and knowledge required to **hand spread asphalt in civil construction**, work must be performed on at least different two occasions and carrying out the actual practical task may be filmed and noted of where the video file is stored.

Note See appendix for guidelines on what to look out for when candidate is performing practical tasks. Use the Appendix topic steps as basic benchmark guide lines.

Practical Assessment 1



You are to provide a work order to the candidate that covers all of the following aspects of hand spread asphalt.

Summary details about what must be covered in hand spreading asphalt for work order:

Demonstrate the ability to;

- hand spread asphalt on at least two different occasions, including:
- hand spreading at least 5m² of asphalt (per patch) to line and level without segregation, including:
 - ~ two patches over 50mm thick, each with a different type of asphalt
 - ~ two patches under 50mm thick, each with a different type of asphalt.
- work with a paver to lay at least 100 lineal metres of longitudinal joint and two transverse joints, according to the work order.

Note: See unit learning guide for sample work order or see your trainer / assessor for work order.

When carrying out the work in the work order you must perform the following tasks.

Task 1. You are to locate or source a work order. i.e. Use the sample work order found in the Learner Guide or one will be provided to you from your Trainer / Assessor. When you complete your practical assessment submit the work order document. (**sample work order.docx**)

Task 2. You are to review the work order task instructions and consult with the supervisor or assessor to **confirm** the **work** that needs to be performed and note down or write notes in the Work order confirmation checklist list of what needs to be done. Submit **Work order Confirmation checklist document (.docx)** to your Trainer / Assessor. (PC 1.1, 1.2)

Task 3. You are to assess and address risks by creating/perform an job safety analyses (JSA).docx, safe work method statements (SWM).docx for the work site according to the work order. (PC 1.3)

Task 4. You are to assess and address **environmental** issues and potential hazards and create a JSEA (.docx) document (PC 1.3)

Task 5. Source and gather all the PPE equipment to complete the work order. (PC 1.4)

Candidate Name:	
Work order / Task to be performed:	

Observation performed when performing practical assessment 1 from task descriptions Candidate:	Yes / No	Notes: <input type="checkbox"/> Occasion 1, <input type="checkbox"/> Occasion 2
<input type="checkbox"/> located and applied legislation, documentation, policies and procedures required for hand spreading asphalt.		
<input type="checkbox"/> Locate and obtained work order (1.1, 1.2)		
<input type="checkbox"/> Interrupt work order or requirements to confirm work before performing work task. (1.1, 1.2) Submitted a confirmation of work order document.docx The following notes we mention in confirmation doc		
<input type="checkbox"/> Note types of asphalt required		
<input type="checkbox"/> Note the properties of the asphalt, cold / hot		
<input type="checkbox"/> Calculated how much material is required for the job.		
<input type="checkbox"/> Reviewed hand spreading techniques		
<input type="checkbox"/> Confirmed what work is required.		
<input type="checkbox"/> What communication techniques to use, see sample easy guides policy and procedures document		
<input type="checkbox"/> Quality check list prepared for use – sourced quality check list document		
<input type="checkbox"/> Located site policies and procedures for personal protective equipment requirements when hand spreading asphalt.		
<input type="checkbox"/> Candidate displays preparedness for emergency situations by outlining the steps to be taken in the case of a fire or accident. By sourcing policy and procedures		
<input type="checkbox"/> Selected all the PPE personal protective equipment needed to complete work order		
<input type="checkbox"/> PPE selected must be as per site policies and relevant to the task.		

As a minimum MUST include appropriate heat resistant footwear, Hi-visibility workwear and heat resistant gloves, heat resistant pants, goggles, hat / hard hat, ear muffs, heat resistant shirt		
<input type="checkbox"/> PPE must be checked for serviceability		

The applicants' performance in Practical Assessment 1 - was deemed to be:

<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Not yet satisfactory
Applicant signature:	Date:
Trainer/assessor signature:	Date:

Written and Practical Assessment Summary – Competency Sign Off

Files to be submitted.

- Sample work order document (.docx) Work order Confirmation checklist document (.docx)
- Job safety analyses (JSA).docx, Safe work method statements (SWM).docx, JSEA (.docx)
- Copy of Exclusion zone checklist and fill in an exclusion zone check list document (.docx)
- A tools and equipment checklist (.docx)
- Copy of an emergency policy and procedures (.docx)
- Hand Asphalt Spreading Quality Checklist (.docx)
- Clearing and Disposing of Materials in a Construction Area checklist (.docx)

Written Assessment

- 1 x Written quiz assessment

Practical Work

- If applicable 2 assessment videos for practical demonstration of skill that occurred on 2 occasions.
Video of demonstration of work on occasion 1 **Name of Video File 1:** _____
- Video of demonstration of work on occasion 2 **Name of Video File 2:** _____

Documents that need to be submitted.

- 1 x Copy of work order
- 1 x Trainer’s Written and Practical Assessment Summary – Competency Sign Off sheet of candidate’s assessment, along with practical assessment checklist/s filled in of observation performed.

Written and Practical Assessment Summary		Satisfactory	Not Satisfactory
0. Written Assessment – (Booklet .docx .pdf)		<input type="checkbox"/>	<input type="checkbox"/>
1. Practical Assessment 1 – Check list		<input type="checkbox"/>	<input type="checkbox"/>
2. Practical Assessment 2– Check list		<input type="checkbox"/>	<input type="checkbox"/>
3. Practical Assessment 3 – Check list		<input type="checkbox"/>	<input type="checkbox"/>
Competency:	Not Yet Competent <input type="checkbox"/> Date _____	Competent <input type="checkbox"/> Date _____	
Feedback to be given to candidate or to Workplace Supervisor			
Trainer / Assessor signature: Date:	The learner has been assessed as <input type="checkbox"/> Not Yet competent / <input type="checkbox"/> Competent in the elements and performance criteria, critical aspects for assessment, required skills and knowledge for this unit and the evidence presented is: <input type="checkbox"/> Authentic <input type="checkbox"/> Valid <input type="checkbox"/> Reliable <input type="checkbox"/> Current <input type="checkbox"/> Sufficient		

Appendix.

SAMPLE

Steps to put on PPE for Working with Hot Asphalt

1. Gather Required Personal Protective Equipment (PPE):

- Flame-resistant or heat-resistant clothing (coveralls)
- Heat-resistant gloves
- Safety boots with steel toe caps
- Safety glasses or goggles
- Hard hat
- Respiratory protection (if required)
- Hearing protection (if operating loud machinery)

2. Prepare a Clean and Safe Area:

- Ensure the work area is free from debris and spills.
- Set up a clean, designated space for donning PPE.

3. Inspect PPE for Damage:

- Check each piece of PPE for any signs of damage or wear.
- Verify that safety features such as steel toe caps or flame-resistant materials are intact.

4. Don Safety Boots:

- Sit down and put on safety boots, ensuring they are snug but not too tight.
- Lace them up securely.

5. Put on Flame-Resistant Coveralls:

- Step into the coveralls and pull them up over your legs.
- Insert your arms into the sleeves and zip up the coveralls.

6. Wear Heat-Resistant Gloves:

- Put on heat-resistant gloves, making sure they cover your hands and wrists completely.

7. Put on Safety Glasses or Goggles:

- Wear safety glasses or goggles to protect your eyes from any potential hazards.

8. Wear a Hard Hat:

- Place the hard hat securely on your head, adjusting the straps for a snug fit.

9. Respiratory Protection (if required):

- If working in an environment with airborne particles or fumes, wear the appropriate respiratory protection.

10. Hearing Protection (if required):

- If operating loud machinery, wear hearing protection such as earplugs or earmuffs.

11. Adjust and Ensure Comfort:

- Adjust all pieces of PPE to ensure comfort and freedom of movement.
- Double-check that each item is worn according to safety standards.

12. Verify Readiness:

- Confirm with a supervisor or colleague that your PPE is correctly worn and that you are ready for the task.