

# Assessment Evidence Guide

## For

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Level-4

**Module name**  
(Formative Assessment)

*8<sup>th</sup> -12<sup>th</sup> March 2021*



**National Vocational & Technical  
Training Commission**

<b>Title of Qualification:</b> Metallography Technician-I	CS Code:	Level: 4	Version: 01
<b>Competency Standard Title:</b> Perform Mounting Operation	<b>Assessment Date (DD/MM/YY):</b>  <b>Assessment Time:</b>		

Candidate Details	Name: .....  Registration/Roll Number:.....
Guidance for Candidate	<p><b>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration &amp; assessment):</b></p> <p><b>Assessment Task 1:</b> Candidate is required to: Perform Cold Mounting Operation</p> <p><b>Assessment Task 2:</b> Candidate is required to: Perform Hot Mounting Operation</p> <p><b>And complete:</b></p> <ol style="list-style-type: none"> <li><b>1. Knowledge assessment test (Written or Oral)</b></li> <li><b>2. Portfolios at the time of assessment (if any)</b></li> </ol>
Minimum Evidence Required	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 1</b></p> <p><b>P1.</b> Select the specimen side or face, which will be study.</p> <p><b>P2.</b> Place that side toward bottom of the mounting cup.</p> <p><b>P3.</b> Prepare the castable mounting material by mixing material A and B.</p> <p><b>P4.</b> Make past of mounting material by proper mixing.</p> <p><b>P5.</b> Lubricating the mounting cup by oil.</p> <p><b>P6.</b> Pour the mixture in mounting cup and leave it for settling.</p> <p><b>P7.</b> Remove the mounted specimen and ready for next step of metallography..</p>

	<p><b>Assessment Task 2</b></p> <p><b>P1.</b> Switch on the hot mounting machine.</p> <p><b>P2.</b> Select the area or side of specimen to be mounted.</p> <p><b>P3.</b> Place that side toward bottom of the mounting die.</p> <p><b>P4.</b> Measure the mounting material according to standard requirement.</p> <p><b>P5.</b> Transfer the mounting material into the mounting die.</p> <p><b>P6.</b> Select the mounting load according to standard and apply.</p> <p><b>P7.</b> Adjust the mounting temperature as per standard.</p> <p><b>P8.</b> Select the time for mounting.</p> <p><b>P9.</b> Remove the specimen from die and ready for next step.</p>
	<p><b>Portfolios required at the time of assessment (if any) for</b></p>

*Continued on following page*

**Assessors Judgment Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature: .....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor: .....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Each Assessment Task (with performance criteria)				
Assessment Task 1		Description of assessment task 1		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
	Select the specimen side or face, which will be study.			
	Place that side toward bottom of the mounting cup.			
	Prepare the castable mounting material by mixing material A and B.			
	Make past of mounting material by proper mixing.			
	Lubricating the mounting cup by oil.			
	Pour the mixture in mounting cup and leave it for settling.			
	Remove the mounted specimen and ready for next step of metallography..			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 2		Description of assessment task 2		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
	Switch on the hot mounting machine.			
	Select the area or side of specimen to be mounted.			
	Place that side toward bottom of the mounting die.			
	Measure the mounting material according to standard requirement.			
	Transfer the mounting material into the mounting die.			
	Select the mounting load according to standard and apply.			
	Adjust the mounting temperature as per standard.			
	Select the time for mounting.			
	Remove the specimen from die and ready for next step.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

<b>Title of Qualification: Metallography Technician-I</b>	CS Code:	Level:	Version: 01
<b>Competency Standard Title: Perform Mounting Operation</b>	<b>Assessment Date (DD/MM/YY):</b>  <b>Assessment Time: 30 min</b>		

Guidance for Candidate	<b>To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.</b>
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**Assessors Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature: .....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor: .....

<b>Title of Qualification: Metallography Technician-I</b>	<b>CS Code:</b>	<b>Level:4</b>	<b>Version:</b> 01
<b>Competency Standard Title: Perform Mounting Operation</b>	<b>Assessment Date (DD/MM/YY):</b>  <b>Assessment Time:</b> 30 min		

#### WRITTEN ASSESSMENT

<b>Question</b>	<b>Candidate's answer</b>
Define purpose of Mounting.	<ul style="list-style-type: none"> <li>• Easy handling</li> <li>• Small sample</li> </ul>
Describe safety symbols for cutting.	<ul style="list-style-type: none"> <li>• Protection</li> <li>• Miss use</li> </ul>
Explain cold mounting techniques	<ul style="list-style-type: none"> <li>• Mixing of two materials</li> <li>• Hardener</li> <li>• Epoxy</li> </ul>
Define General grit size ranges	<ul style="list-style-type: none"> <li>• 80-1500#</li> <li>• 80 rougher#</li> <li>• 1000 Finer #</li> </ul>
Define hot mounting.	<ul style="list-style-type: none"> <li>• Use Bakelite</li> <li>• Pressure</li> <li>• Temperature</li> </ul>
Define types of mounting materials	<ul style="list-style-type: none"> <li>• Cold</li> <li>• Hot</li> </ul>
Explain mounting pressure and temperatures for	<ul style="list-style-type: none"> <li>• Psi</li> <li>• C<sup>0</sup></li> </ul>



Question	Candidate's answer