

Carpet tiles

Supporting:

***MSFFL3059:
Install carpet
tiles***



**To be used in conjunction
with the Learner Guide
for this unit**



Student Workbook

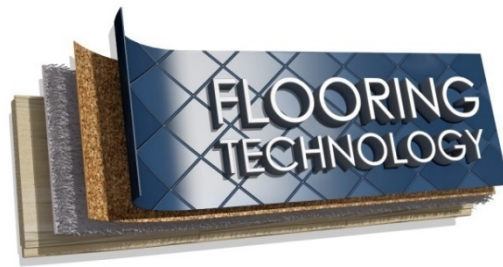
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Carpet tiles

Student Workbook



This Workbook accompanies the Learner guide for 'Adhesive fixed carpet'. It has been developed by Industry Network Training and Assessment Resources (INTAR) for the National Flooring Trainers Network (NFTN) with funding provided by the Carpet Institute of Australia Limited (CIAL).

Its purpose is to help apprentice floor layers, sales staff and other workers to acquire the background knowledge needed to satisfy the theoretical components of the competency: *MSFFL3059 Install carpet tiles*.

It is not designed to replace the practical training necessary to develop the hands-on skills required.

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In all cases, users should consult the original source documents before relying on any information presented in the resource.

These source documents include manufacturers' installation guides, Australian Standards, codes of practice and other materials produced by specialist industry bodies and government agencies.

About the Flooring Technology project

The Flooring Technology project is an ongoing resource development venture coordinated by INTAR to assist apprentice flooring installers undertaking the *Certificate III in Flooring Technology*.

For more information about INTAR, and to see the full range of Flooring Technology units available under this project, go to the following website and follow the links:

www.intar.com.au

For more information on the background of the Flooring Technology project, and the funding bodies, organisations and individuals that have been involved in its development work over the years, go to the following website and follow the links:

www.workspacetraining.com.au

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Introduction

Carpet tiles is a 'learning unit' from the Flooring Technology training resource. It supports the following competency from the *Certificate III in Flooring Technology* (MSF30813):

- *MSFFL3059: Install carpet tiles.*

Using this workbook

All of the lessons in the Learner guide for this unit have learning activities at the end. Their purpose is to test your knowledge of the subject matter and reinforce your understanding of the concepts being presented.

This workbook reproduces all of the learning activities in a format that lets you handwrite your answers to the questions. Your assessor will use this workbook as one of the evidence requirements for demonstrating competence in the unit.

How you will be assessed

To be assessed as competent in this unit, your assessor will use a range of methods to evaluate your practical skills and understanding of the concepts relating to the installation of carpet tiles.

In addition to this workbook, your assessor will also use one or more of the following assessment methods to collect evidence of your competence:

- practical demonstrations of carpet tile installations
- on-the-job discussions about how you go about particular activities
- log book or work diary
- reports from your workplace supervisor.

See the next chapter – 'Assessment evidence checklists' – for a summary of the skills and knowledge you will need to demonstrate in your various assessment activities.

Literacy, numeracy and computer skills

Literacy is the ability to read and write. To complete this qualification, you will need sufficient literacy skills to fill in a range of workplace documents and complete the learning activities. You will also need the skills to be able to read and understand documents such as order forms, installation instructions, project briefs and safe operating procedures.

Numeracy is the ability to work with numbers. Flooring installers need to do lots of measure-ups and calculations, so there will be many opportunities for you to learn and practise your numeracy skills.

When it comes to completing the learning activities for this qualification, a certain level of literacy ability is required to read the questions and write down your answers. There may be times when you are asked to generate documents on a computer.

If you have any trouble reading the questions, writing down your answers, or using certain computer programs, make sure you speak to your trainer before you hand the workbook or assignment in.

There are various ways your trainer can help you. For example, they may be able to ask the questions verbally and help you to write down your answers. They may also be able to show you sample answers to similar questions, which will let you look at the way they're written and give you hints on how to write your own. You may also be allowed to do the assignment with the assistance of another person.

Applying for RPL

RPL stands for **Recognition of Prior Learning**. It is a form of assessment that acknowledges the skills and knowledge you have gained through:

- on-the-job experience
- formal training in other courses
- life experience, through your hobbies or other outside activities.

If you believe that you are already competent in some or all of the skills covered in this unit, ask your assessor about how to apply for RPL.

Assessment evidence checklists

The checklists below set out the sorts of things your trainer will be looking for when you undertake the practical demonstrations and knowledge tests for this unit.

They are divided into 'Performance evidence' and 'Knowledge evidence' checklists. Performance evidence refers to tasks or activities you will need to perform through practical demonstrations. Knowledge evidence refers to items of information you will need to show an understanding of through the completion of written tests, workbook learning exercises and verbal discussions.

Make sure you talk to your trainer or supervisor about any of the details that you don't understand, or aren't ready to demonstrate, before the assessment events are organised. This will give you time to get the hang of the tasks you will need to perform, so that you'll feel more confident when the time comes to be assessed.

When you are able to tick all of the YES boxes below you will be ready to complete the practical demonstrations and knowledge tests for this unit.

Specific demonstration criteria	YES
Complete at least three carpet tile installations with:	
<ul style="list-style-type: none"> • two installations using full-spread pressure sensitive adhesive • one installation using low adhesive 	<input type="checkbox"/> <input type="checkbox"/>
All of the following design features must be demonstrated at least once in these three installations:	
<ul style="list-style-type: none"> • hallway with multiple connecting rooms • site link-up around a central core • custom design requirement • multi-directional patterns/borders 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Specific knowledge evidence	YES
Adhesive fixed carpets – including types, characteristics, uses and limitations	<input type="checkbox"/>
Tools and equipment, including procedures for their safe use, operation and maintenance	<input type="checkbox"/>
Cutting, laying, fixing, joining and finishing adhesive fixed carpet	<input type="checkbox"/>
Characteristics and requirements of sub-floor preparation	<input type="checkbox"/>

General performance criteria	YES
Comply with all relevant WHS policies and procedures	<input type="checkbox"/>
Read the work documents to find the information required to carry out the job properly	<input type="checkbox"/>
Assess the subfloor to check that it complies with relevant Australian Standards and manufacturer's recommendations	<input type="checkbox"/>
Select suitable adhesive, trims and accessories	<input type="checkbox"/>
Select the correct tools for the job and check them prior to use	<input type="checkbox"/>
Plan the sequence of work to ensure the job proceeds efficiently	<input type="checkbox"/>
Check the carpet tiles to be installed against the work order and acclimatise them as per the manufacturer's recommendations	<input type="checkbox"/>
Handle tools, materials and products safely, and wear all required PPE	<input type="checkbox"/>
Establish working lines and starting point, taking into account site features, borders, wastage and the job specifications	<input type="checkbox"/>
Apply the adhesive and lay the tiles in accordance with specifications	<input type="checkbox"/>
Match and contrast tile grains and patterns where required	<input type="checkbox"/>
Cut tiles accurately, minimise wastage and maintain high quality joins and fitments	<input type="checkbox"/>
Install trims and accessories in accordance with job requirements	<input type="checkbox"/>
Inspect the job and rectify faults	<input type="checkbox"/>
Clean up the work area, dispose of rubbish appropriately and recycle waste products where applicable	<input type="checkbox"/>
Store unused materials according to site procedures	<input type="checkbox"/>
Complete all required workplace documentation	<input type="checkbox"/>
Background knowledge evidence	YES
Mathematical procedures for measuring lengths, calculating areas and estimating material quantities	<input type="checkbox"/>
Australian Standards relating to carpet tile installation	<input type="checkbox"/>

Workplace safety and environmental protection requirements	<input type="checkbox"/>
Carpet tile characteristics, types of construction and shapes available	<input type="checkbox"/>
Subfloor preparation requirements	<input type="checkbox"/>
Adhesives and fixing systems used for carpet tile installations	<input type="checkbox"/>
Tools and equipment used in carpet tile installations	<input type="checkbox"/>
Techniques for setting out, laying, cutting and fixing carpet tiles	<input type="checkbox"/>
Problems that may occur during installation and methods for avoiding or overcoming them	<input type="checkbox"/>
Workplace procedures for recording and reporting information	<input type="checkbox"/>

Section 1: Preparing for the installation

1. Tools and equipment

- a) Are there any tools mentioned in this lesson that you don't use in your own on-site installations? Which ones are they?

- b) Are there any additional tools that you do use, that aren't listed? What are they, and what do you use them for?

2. Health and safety

For each hazard below, state what 'risks' they might pose to people's health and safety, and what 'control measures' you would put in place to minimise the risks.

Hazards	Risks	Control measures
Other people on-site who might walk through the installation area		
Boxes of carpet tiles that need to be moved from the truck to the work area		
Working in a room with poor ventilation		
Tools, offcuts and other building items scattered around the floor		

3. Documentation

- a) What is the purpose of a SWMS (safe work method statement)?

- b) Why is it the case that on large commercial jobsites everyone has to sign the SWMS before they start work?

4. Assessing the subfloor

- a) Why is subfloor moisture content an important consideration when you're laying carpet tiles?

- b) What are the main problems that might occur in a carpet tile installation if the moisture content in the substrate was too high?

Section 2: Carpet tiles, underlay and adhesives

1. Carpet tile construction

Choose one carpet tile product you are familiar with and do some research on its properties and the materials used in its manufacture. Provide the following details about the product.

Brand name and manufacturer	
Pile texture and yarn material	
Materials used in the backing	
Other features and properties	

2. Adhesives

Select one adhesive product that is used for carpet tile installation. Complete the table below for that product.

1 st example – full-spread pressure sensitive adhesive	
Brand name and manufacturer	
Type of adhesive	
Recommended installation method	
Tack-up time (where applicable)	

2 nd example – other adhesive system	
Brand name and manufacturer	
Type of adhesive	
Recommended installation method	
Tack-up time (where applicable)	

3. Underlay

Select one cushion underlay product and one hard underlay product suitable for use with carpet tiles. Complete the table below for that product.

Cushion underlay product	
Brand name and manufacturer	
Material composition of the product	
Thickness and size (e.g. sheet size, length of roll etc.)	

Hard underlay product	
Brand name and manufacturer	
Material composition of the product	
Thickness and size (e.g. sheet size, length of roll etc.)	

Section 3: Installation procedures

1. Preparing the subfloor and room

Select a specific carpet tile product and get a copy of the manufacturer's installation guidelines. Ideally, you should choose one of the products you will be installing for your practical demonstration assessment activity in this unit.

Answer the following questions about the tile product, using the manufacturer's guide as your reference source:

- a) What is the minimum acclimatisation period in the room?

- b) What is the specified ambient air temperature range and relative humidity in the room?

- c) What is the specified temperature range and maximum relative humidity in the subfloor at installation time?

- d) What other recommendations does the manufacturer provide in relation to the site conditions or preparation of the carpet?

2. Installing the underlay

Choose a specific underlay product suitable for use under carpet tiles. If your practical demonstration assessment activity includes the installation of an underlay, you should select that product for this learning exercise.

Answer the following questions about the underlay, using the manufacturer's guide as your reference source:

- a) What are the recommendations concerning acclimatisation of the underlay?

- b) What are the recommendations regarding smoothing out bubbles or wrinkles for a dual bond installation?

3. Setting out the working lines

Your trainer will give you a room to measure up for a carpet tile installation. You will also be given a specific tile size to work with. Your task is to produce a sketch showing the details set out below. Use the space provided on the following page.

The sketch does not need to be drawn perfectly to scale. However, it should be well set out with straight lines and information that's clearly marked and easy to read. You may need to produce a rough version first and then re-draw it when you have worked out the details.

- a) Basic proportional sketch of the room, showing all measurements required to calculate and set out the working lines for the tiled floor.
- b) Extra information showing the following set-out details:
- chalk lines required to find the centre point of the room
 - finished size of the cut border tiles against the perimeter walls
 - lengths along the working lines between the walls and the starting point.

Site plan








4. Interpreting tile product details

Have a look at the label on one of the cartons of tiles that you will be using for your installation demonstration. Complete the table below using the information from that label.

Product name and type of tile	
Tile size, quantity (number) and m ²	
Colour / pattern and dye lot number	

5. Laying square tiles

Below are some common aluminium trim profiles used with carpet tile installations. For each one, name the type of profile and give one example of where you would use it.

Profile	Type of profile	Situation
		
		
		
		
		

6. Laying other tile shapes

The hyperlink below will take you to a Shaw Contract video clip showing the set-out and installation procedures for their hexagonal tiles:

- <https://www.shawcontract.com/en-us/products/technical/installation>

Watch the video clip and then answer the following questions:

- a) How many chalk lines are used in the set-out?

- b) How are the 'LokDots' (pressure sensitive adhesive) applied?

- c) How many dots are required for each hexagonal tile?

7. Motifs and custom designs

Depending on the size of the circle and the number of circles you need to cut, it is sometimes more convenient to use a full-sized template, rather than a marking gauge.

Let's say you needed to install several circles like the one shown in the Learner guide.

- a) What material would be a good choice for the template?

- b) What tool would you use to cut the template to shape?

8. Finishing the installation

Complete this learning activity after you have finished one of your practical demonstration installations.

Have a think about the way the installation went – starting with the initial measure-up and set-out, and continuing through to applying the adhesive, laying the tiles, cutting-in border tiles, cutting around other shapes or architectural features, and all other aspects of the overall job.

Do a self-evaluation on your performance. Then answer the following questions.

- a) Which parts of the installation were you most comfortable with – that is, which bits were the easiest, or used skills that you are already good at?

- b) When you inspected the finished floor, did you need to fix any problems that had occurred during laying, such as excessive tension, gaps, raised edges, tapered border tiles, or any other issues?

- c) Overall, which skills do you think you need to improve on the most, so that you will get better results in future installations?