

Carpet basics

Supporting:

MSFFL2017: Install carpet cushion underlays and gripper accessories

MSFFL2018: Install unpatterned tufted and bonded carpet floor coverings



Workbook



Name:

Carpet basics

Workbook

Containing learning activities and assignments for the units of competency:

MSFFL2017: Install carpet cushion underlays and gripper accessories

MSFFL2018: Install unpatterned tufted and bonded carpet floor coverings



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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.

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Introduction

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

- *MSFFL2017: Install carpet cushion underlays and gripper accessories*
- *MSFFL2018: Install unpatterned tufted and bonded carpet floor coverings*

To be assessed as competent, your assessor will use a range of methods to check your understanding of the concepts presented in the Learner guide for this unit and your practical ability to installed tufted and bonded carpet on the gripper system.

These may include:

- written assignments
- practical demonstrations
- on-the-job discussions about how you go about particular activities
- learning activities undertaken while you're progressing through the unit
- examples of tasks you have undertaken
- log book or work diary.

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. 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 written assignments for this qualification, a certain level of literacy ability is required to read the questions and write down your answers. There will also be times when you are asked to generate documents on a computer.

Obviously, it's important that you clearly understand what the assignment is asking you to do, and that your work is a good reflection of what you really know. So if you're having trouble reading the questions, writing down your answers, or using certain computer programs, make sure you speak to your trainer before you hand the assignment in.

There are various ways your trainer can help you. For example, they may be able to ask the assignment 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.

Using this workbook

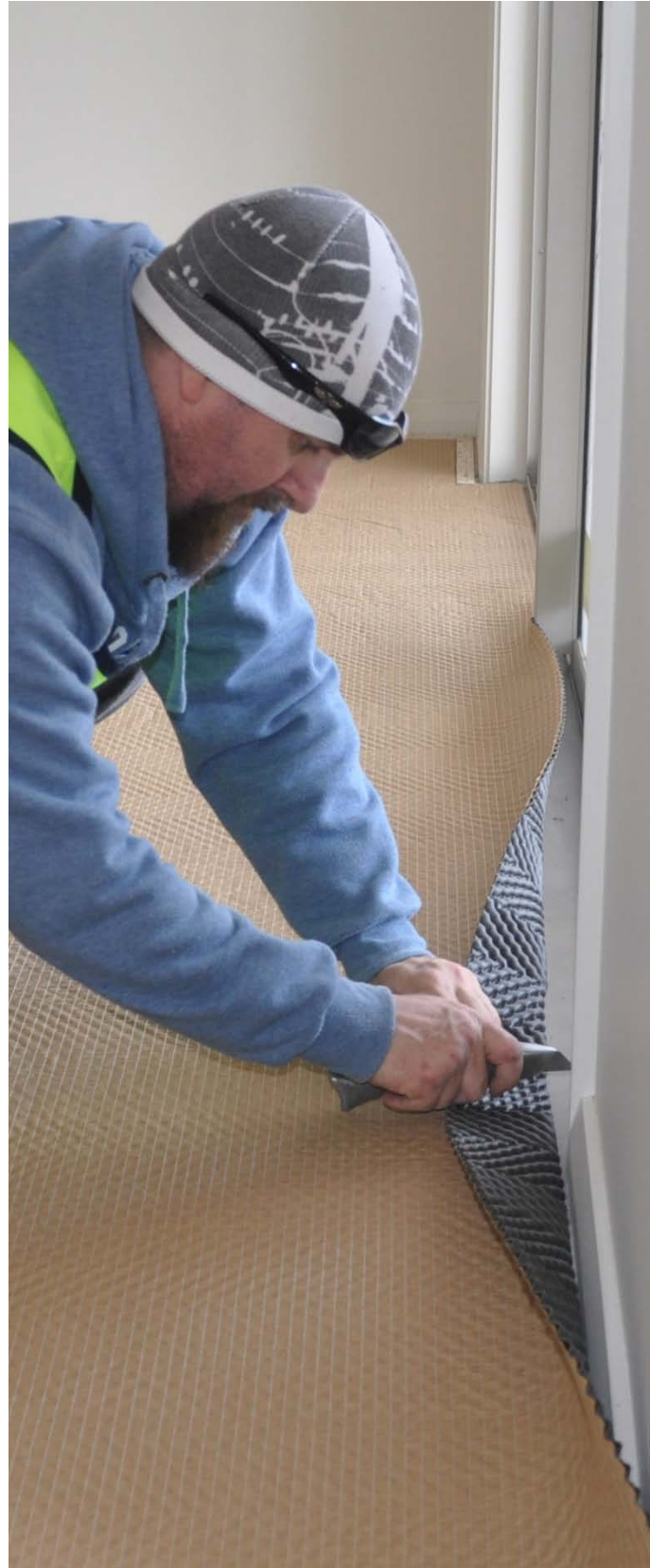
All of the lessons in the Learner guide for this unit have learning activities at the end. Their purpose is to provide discussion points and questions to help reinforce your understanding of the concepts being presented.

There are also a range of assignments, which appear at the end of each section. These are designed to test your knowledge of the subject matter and ability to submit written responses in an acceptable format.

This workbook reproduces all of the learning activities and assignments in a format that lets you handwrite your answers to the questions.

Part 1

Learning activities



Section 1: Preparing for installation

Tools and equipment

There are several types of power tools that flooring installers often use when they're installing carpet over a cushion underlay using a gripper system. These tools are typically powered either by mains electricity or compressed air.

Can you think of some examples? Write up a list of some examples in the table below, naming the tool, its power source, and what you would use it for as a flooring installer.

Tool	Power source	Use

Dealing with the client

The arrangements listed in the Learner guide are examples of some of the preparations and cross-checks you need to make before you show up on-site to carry out the installation.

Can you think of any others? Write your answers below.

Health and safety

Why is it often said that you're less likely to suffer a cut injury from a sharp blade than from a blunt blade? How does its sharpness affect your cutting action, and the likelihood of an injury?

Documentation

'AS' stands for Australian Standard. What does NZS stand for, and why is it included in this title: AS/NZS 2455.1:2007 ?

Assessing the subfloor

If you had to deal with old floor coverings that contained asbestos, how would you remove them from the floor, and what special precautions would you take in removing, packaging and disposing of them?

Section 2: Carpet grippers and mouldings

Carpet grippers

Assume you are going to install carpet in the room you are in right now. Estimate the quantity of carpet gripper strips required for the installation. Use both of the techniques described in the Learner guide, and compare the two results to see how close they are to each other.

Write down your calculations below.

Metal mouldings

The cover strip shown at right has been fastened with Phillips head screws to the concrete subfloor.

Name all of the tools, accessories and hardware items you would have brought with you to the jobsite to complete this cover strip installation.



Dealing with problem subfloors

Give a brand name product that you would use to patch and fill any hollows in a concrete subfloor after chipping out aggregate screenings with a cold chisel.

Section 3: Carpet cushion underlays

Properties and classifications

Choose a specific cushion underlay that you have installed at one of your jobsites. Look up its specifications in the manufacturer's datasheet or on their website.

Write down the brand name of the product, the manufacturer, and any other technical details that relate to its properties and classification.

Brand name	
Manufacturer	
Technical details	

Types of cushion underlays

List one brand name and manufacturer for each of the three main types of cushion underlay: fibre, rubber and foam.

Fibre underlay:

Brand name	
Manufacturer	

Rubber underlay:

Brand name	
Manufacturer	

Foam Underlay:

Brand name	
Manufacturer	

Laying techniques

Some manufacturers make a carpet cushion with the underside already coated with pre-applied adhesive, covered with a release film.

Have you used this type of cushion before? If so, what brand was it and who made it? If you haven't used one before, do some research and find a brand name product. Write down its name and manufacturer.

Brand name	
Manufacturer	

Working with adhesives

The term 'open time' is sometimes used as a shorthand way to say 'working open time' – that is, the total time you have available to lay the flooring once the adhesive has been spread. Because the term has slight variations in meaning, some manufacturers refer to the time you should wait between spreading the adhesive and laying the material as 'set-up time' or 'tack-up time'.

Get a container of adhesive and have a look at the label. Answer the following questions in the table provided:

- What is the brand name, and who is the manufacturer?
- What term is used for set-up (or 'open') time, and what is the duration?
- What term is used for working time, and what is the duration?

Brand name		
Manufacturer		
Set-up time	Term:	Duration:
Working time	Term:	Duration:

Section 4: Tufted and bonded carpets

Carpet construction

Provide one brand name and manufacturer for each of the following types of carpet fibre: nylon, polypropylene, wool and fibre blend.

For each one, provide the following details: pile texture, backing materials, and construction method (i.e. whether it is tufted or fusion bonded)

Nylon fibre	
Brand name	
Manufacturer	
Pile texture	
Backing materials	
Construction	

Polypropylene fibre	
Brand name	
Manufacturer	
Pile texture	
Backing materials	
Construction	

Wool fibre	
Brand name	
Manufacturer	
Pile texture	
Backing materials	
Construction	

Fibre blend	State the blend:	
Brand name		
Manufacturer		
Pile texture		
Backing materials		
Construction		

Setting out the installation

Why does AS 2455 specify a preferred ambient temperature of between 10° C and 35° C? What problems might occur if the temperature was too cold? What might occur if it was too hot?

Seam trimming

Briefly describe the difference between a loop pile cutter and a cushion back cutter. Also indicate what their normal usages are.

Seaming the carpet

Answer the following questions either in relation to a seaming iron or speed seam used to join the seams in tufted or bonded carpet.

Also indicate the types of carpet the hot melt tape and heating tool have been designed to be used with.

Item	Brand name	Manufacturer
Hot melt tape		
Heating tool		
Types of carpet		

Stretching the carpet

Provide the model name and manufacturer of a power stretcher.

Power stretcher	
Model name	
Manufacturer	

Trimming in

Duckbill napping shears are used trim off loose yarns in the carpet tufts.

What is the purpose of the 'duckbill' shape?

Finishing the installation

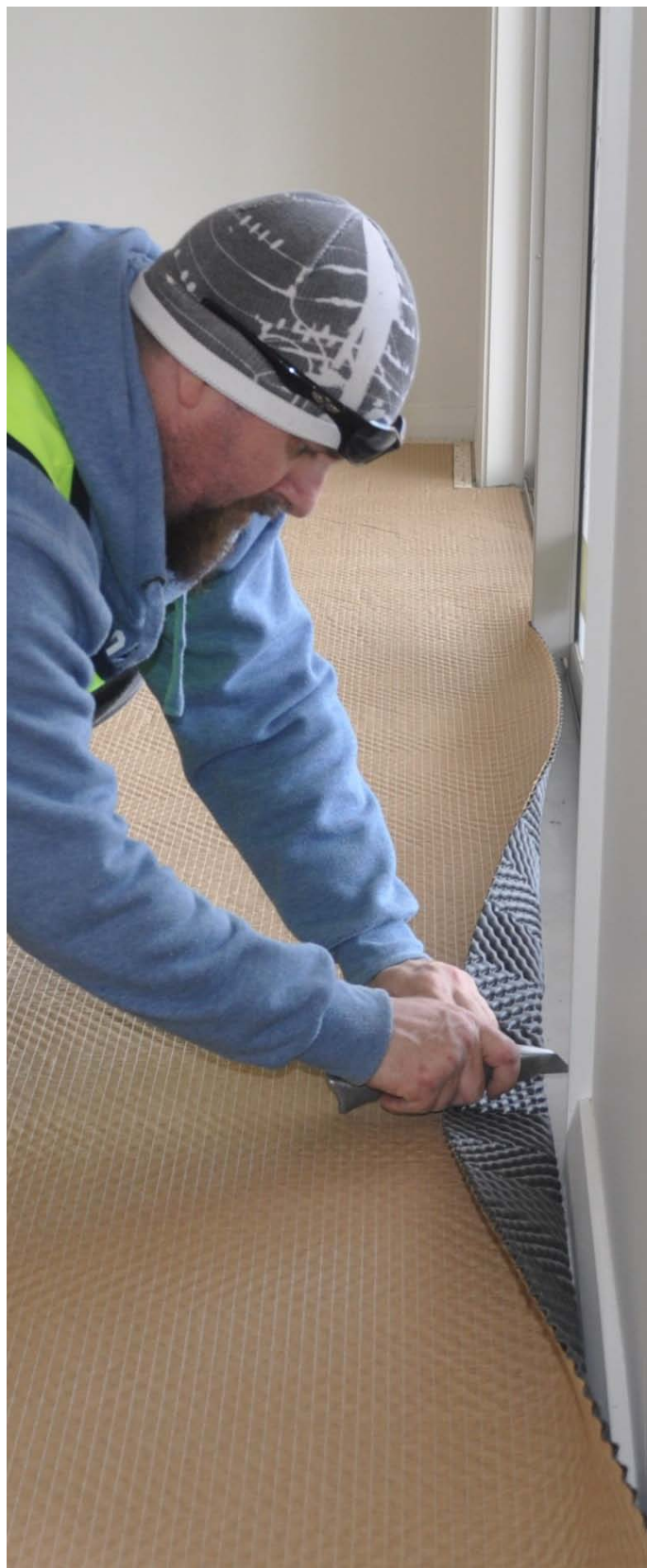
How should you clean up and dispose of the following types of waste products on-site?

- liquids – such as left over primers
- solids – such as left over patching and levelling compounds
- small carpet offcuts
- large carpet offcuts

On-site clean up and disposal methods	
Liquids	
Solids	
Small carpet offcuts	
Large carpet offcuts	

Part 2

Assignments



Assignment 1

1. There are many advance arrangements that need to be made with the client prior to installation day, over and above the specific details of the floor covering itself. List six of these arrangements that relate to general on-site conditions and preparations.

1.
2.
3.
4.
5.
6.

2. (a) You are going to install tufted carpet over a gripper system in a person's home. The subfloor has already been prepared. What items of personal protective equipment (PPE) will you need to take?

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- (b) Now you are going to do the same installation in a large retirement village still under construction. What extra items of PPE should you have with you – that is, what might the site manager want to see before you are allowed on-site?

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3. Who takes final responsibility for deciding whether a subfloor is in a suitable condition for a floor covering installation?

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-
4. Name two things you should assess in a concrete subfloor before you begin an installation. For each issue, describe one possible problem that might result if the conditions did not meet the required standards.

Issue to be assessed in concrete subfloor	Resulting problem
1.	
2.	

5. Name two things you should assess in a timber subfloor before you begin an installation. For each issue, describe one possible problem that might result if the conditions did not meet the required standards.

Issue to be assessed in timber subfloor	Resulting problem
1.	
2.	

Assignment 2

AS/NZS 2455 has a section that deals specifically with the installation of textile floor coverings using the gripper system. Get a copy of this Standard to answers to the following questions.

1. The carpet gripper system may be used with most types of textile floor coverings. But the Standard lists three exceptions. What are these exceptions?

1.
2.
3.

2. If the wall length is longer than 7 metres, what is the minimum requirement in terms of the type and quantity of gripper strips you must use?

--

3. There are three methods listed for fixing hardened steel nails to a concrete subfloor. What are these methods?

1.
2.
3.

4. What is the maximum gully size specified in the Standard between the gripper and the wall, expressed in terms of the carpet thickness?

--

5. How close together should fixings be from the gripper strip into the subfloor?

--

6. What is the maximum distance from each end that you should place the fixings?

--

-
7. If a gripper strip is less than 7 cm long, can you fasten it with one nail in the centre? If not, what is the minimum number of fixings permissible?

8. You may put a gripper strip across a door opening, but only under certain conditions. What are these conditions?

Assignment 3

1. Draw up a simple floor covering plan of the installation you will undertake as one of your practical demonstration events. Do this on a separate page. If your company had already prepared a floor covering plan, you may submit a copy of it as your plan.

The plan should show the following details:

- floor covering and cushion underlay to be installed
- positioning of seams and joins
- direction of the carpet pile
- types of trims and accessories to be used
- subfloor preparations required
- any special features of the job.

2. Provide details on the following aspects of the installation:

(a) Subfloor preparation:

- type of subfloor and brief description of its original condition
- work required to prepare it for the carpet installation
- brand names of any preparation products used, such as patching and levelling compounds, primers, etc.

Subfloor preparation	
Type of subfloor	
Original condition	
Work required	
Products used	

(b) Carpet grippers:

- description of gripper strips, including type and total quantity
- method (or methods) used to fix the gripper strips to the subfloor

Carpet grippers	
Type	
Quantity	
Fixing method(s)	

(c) Cushion underlay:

- brand name and manufacturer of underlay
- brief summary of its technical specifications, including type, classification and thickness
- method used to secure it to the subfloor, including details of fasteners or adhesives

Cushion underlay	
Brand name	
Manufacturer	
Specifications	
Installation method	

Assignment 4

- Provide details on the following aspects of the carpet installation you have chosen for Assignments 3 and 4.
 - brand name and manufacturer of the carpet
 - type of carpet (tufted or fusion bonded)
 - pile texture and materials used in the carpet fibres
 - backing materials used.

Carpet	
Brand name	
Manufacturer	
Type of carpet	
Pile texture/materials	
Backing materials	

- Provide brand/model names and manufacturers of the following tools used to carry out the carpet installation:
 - stretching tools
 - trimming and cutting tools
 - seaming tools

Tools used for:	Brand name	Manufacturer
Stretching		
Trimming/cutting		
Seaming		

Practical demonstration

In this unit we have provided background materials to cover the following two competencies:

MSFFL2017: Install carpet cushion underlays and gripper accessories

MSFFL2018: Install unpatterned tufted and bonded carpet floor coverings.

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

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 event is 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 carry out the practical demonstration components of this learning unit.

MSFFL2017: Install carpet cushion underlays and gripper accessories

Specific performance evidence – you will need to:	Yes
Complete a minimum of 2 carpet cushion/underlay installations, with 1 incorporating obstructions such as doorways, fittings and irregular (obtuse/acute) angles using the carpet gripper installation system	<input type="checkbox"/>
Specific knowledge evidence – you will need to demonstrate your understanding of:	Yes
Carpet cushion/underlay and gripper accessories – including the different types available and their characteristics, uses and limitations	<input type="checkbox"/>
Tools and equipment, including procedures for their safe use, operation and maintenance	<input type="checkbox"/>
Cutting and fitting of carpet cushion/underlays and gripper accessories	<input type="checkbox"/>
Characteristics and requirements of sub-floor preparation	<input type="checkbox"/>

MSFFL2018: Install unpatterned tufted and bonded carpet floor coverings

Specific performance evidence – you will need to:	Yes
Complete a minimum of:	
• 1 installation of tufted carpet (Installation 1)	<input type="checkbox"/>
• 1 installation of bonded carpet using a carpet gripper installation system to connecting rooms, including at least one seam join and one cross join (Installation 2)	<input type="checkbox"/>
Specific knowledge evidence – you will need to demonstrate your understanding of:	Yes
Tools and equipment, including procedures for their safe use, operation and maintenance	<input type="checkbox"/>
Types, characteristics, uses and limitations of tufted and bonded carpets	<input type="checkbox"/>
Techniques for installing, joining and stretching carpet	<input type="checkbox"/>

General evidence requirements for both competencies

Performance evidence – you will need to demonstrate your ability to:	Yes
Correctly understand instructions and work orders, and seek out all relevant information	<input type="checkbox"/>
Handle tools, materials and products safely, and wear all required PPE	<input type="checkbox"/>
Use safe work practices to minimise the risks of injury to self and others	<input type="checkbox"/>
Follow procedures to prevent damage to materials or equipment and minimise wastage	<input type="checkbox"/>
Plan activities to avoid any backtracking, interruptions or wastage	<input type="checkbox"/>
Work efficiently to optimise work flow and maintain production output and product quality	<input type="checkbox"/>
Carry out pre-checks and inspections to anticipate problems and take corrective action	<input type="checkbox"/>
Modify activities to cater for variations in workplace conditions	<input type="checkbox"/>
Interpret basic plans and take accurate measurements	<input type="checkbox"/>
Calculate area and estimate material requirements	<input type="checkbox"/>
Communicate effectively, work cooperatively with others and ask for help when needed	<input type="checkbox"/>
Report work outcomes and problems	<input type="checkbox"/>

Knowledge evidence – you will need to demonstrate your understanding of:	Yes
WHS legislation, regulations, standards and codes of practice relevant to the task	<input type="checkbox"/>
Company and worksite policies and procedures relevant to the task	<input type="checkbox"/>
Types of tools and equipment, and procedures for their safe use and maintenance	<input type="checkbox"/>
Control measures and safety equipment used to manage risk	<input type="checkbox"/>
Procedures for recording workplace information and reporting problems	<input type="checkbox"/>
Methods for estimating and calculating quantities and measurements	<input type="checkbox"/>
Strategies for working with others in a team	<input type="checkbox"/>
Environmental protection requirements	<input type="checkbox"/>
Lines of communication and procedures for resolving problems	<input type="checkbox"/>