Occupational Analyses Series

Floorcovering Installer

2012

Trades and Apprenticeship Division	Division des métiers et de l'apprentissage
Labour Market Integration Directorate	Direction de l'intégration au marché du travail
National Occupational Classification:	7295
Disponible en français sous le titre :	Poseur/poseuse de revêtements souples

You can order this publication by contacting:

Trades and Apprenticeship Division
Labour Market Integration Directorate
Human Resources and Skills Development Canada
140 Promenade du Portage, Phase IV, 5th Floor
Gatineau, Quebec K1A 0J9

Online: www.red-seal.ca

This document is available on demand in alternative formats (Large Print, Braille, Audio Cassette, Audio CD, e-Text Diskette, e-Text CD, or DAISY), by contacting 1 800 O-Canada (1 800 622-6232). If you have a hearing or speech impairment and use a teletypewriter (TTY), call 1 800 926-9105.

Paper
Cat. No.: HS42-1/45-2012E
ISBN: 978-1-100-19930-6

PDF
Cat. No.: HS42-1/45-2012E-PDF
ISBN: 978-1-100-19931-3

FOREWORD

The Canadian Council of Directors of Apprenticeship (CCDA) recognizes this National Occupational Analysis (NOA) as the national standard for the occupation of Floorcovering Installer.

Background

The first National Conference on Apprenticeship in Trades and Industries, held in Ottawa in 1952, recommended that the federal government be requested to cooperate with provincial and territorial apprenticeship committees and officials in preparing analyses of a number of skilled occupations. To this end, Human Resources and Skills Development Canada (HRSDC) sponsors a program, under the guidance of the CCDA, to develop a series of NOAs.

The NOAs have the following objectives:

- to describe and group the tasks performed by skilled workers;
- to identify which tasks are performed in every province and territory;
- to develop instruments for use in the preparation of Interprovincial Red Seal Examinations and curricula for training leading to the certification of skilled workers;
- to facilitate the mobility of apprentices and skilled workers in Canada; and,
- to supply employers, employees, associations, industries, training institutions and governments with analyses of occupations.

ACKNOWLEDGEMENTS

The CCDA and HRSDC wish to express sincere appreciation for the contribution of the many tradespersons, industrial establishments, professional associations, labour organizations, provincial and territorial government departments and agencies, and all others who contributed to this publication.

Special acknowledgement is extended by HRSDC and the CCDA to the following representatives from the trade.

Chris Gallucci	Ontario, United Brotherhood of Carpenters and Joiners
Marc Gaudet	Québec
Brad Holmes	Manitoba
Cory Horne	Nova Scotia
Wade Kalnicki	Alberta
John Loupelle	National Floor Covering Association of Canada
Douglas Morton	Yukon
Braydon Puffalt	British Columbia, United Brotherhood of Carpenters and Joiners
Terry Whitall	National Floor Covering Association of Canada

This analysis was prepared by the Labour Market Integration Directorate of HRSDC. The coordinating, facilitating and processing of this analysis were undertaken by employees of the NOA development team of the Trades and Apprenticeship Division. The host jurisdiction of Manitoba also participated in the development of this NOA.

TABLE OF CONTENTS

FOREWORD	I
ACKNOWLEDGEMENTS	II
TABLE OF CONTENTS	III
LIST OF PUBLISHED NATIONAL OCCUPATIONAL ANALYSES	V
STRUCTURE OF ANALYSIS	VII
DEVELOPMENT AND VALIDATION OF ANALYSIS	IX

ANALYSIS

SAFETY			3
SCOPE OF THE FLOORCOVERING INSTALLER TRADE			4
OCCUPATIONAL OBSERVATIONS			6
ESSENTIAL SKILLS SUMMARY			7
BLOCK A	**COMMON OCCUPATIONAL SKILLS**		
	Task 1	Performs safety-related functions.	10
	Task 2	Assesses floor and jobsite conditions.	12
	Task 3	Organizes work.	14
	Task 4	Installs transitions, trims and wall bases.	17
BLOCK B	**FLOOR PREPARATION**		
	Task 5	Removes existing floorcovering and accessories.	20
	Task 6	Prepares substrate.	22

BLOCK C	**CARPET**		
	Task 7	Installs carpet.	27
	Task 8	Performs custom carpet procedures.	32
	Task 9	Installs artificial turf. (NOT COMMON CORE)	35
	Task 10	Services carpet installations.	37
BLOCK D	**RESILIENT FLOORING**		
	Task 11	Installs resilient flooring.	41
	Task 12	Performs custom resilient flooring procedures.	46
	Task 13	Services resilient flooring installations.	49
BLOCK E	**WOOD AND LAMINATE FLOORING**		
	Task 14	Installs pre-finished solid and engineered hardwood, and laminate flooring.	51
	Task 15	Installs custom wood and laminate flooring.	56
	Task 16	Services pre-finished solid and engineered hardwood, and laminate flooring.	58

APPENDICES

APPENDIX A	**TOOLS AND EQUIPMENT**	63
APPENDIX B	**GLOSSARY**	66
APPENDIX C	**ACRONYMS**	71
APPENDIX D	**BLOCK AND TASK WEIGHTING**	72
APPENDIX E	**PIE CHART**	75
APPENDIX F	**TASK PROFILE CHART**	76

LIST OF PUBLISHED NATIONAL OCCUPATIONAL ANALYSES (Red Seal Trades)

TITLE	NOC* Code
Agricultural Equipment Technician (2007)	7312
Appliance Service Technician (2011)	7332
Automotive Painter (2009)	7322
Automotive Service Technician (2011)	7321
Baker (2011)	6252
Boilermaker (2008)	7262
Bricklayer (2011)	7281
Cabinetmaker (2007)	7272
Carpenter (2010)	7271
Concrete Finisher (2006)	7282
Construction Craft Worker (2009)	7611
Construction Electrician (2011)	7241
Cook (2011)	6242
Electrical Rewind Mechanic (1999)	7333
Floorcovering Installer (2012)	7295
Glazier (2008)	7292
Hairstylist (2011)	6271
Heavy Duty Equipment Technician (2009)	7312
Industrial Electrician (2011)	7242
Industrial Mechanic (Millwright) (2009)	7311
Instrumentation and Control Technician (2010)	2243
Insulator (Heat and Frost) (2007)	7293
Ironworker (Generalist) (2010)	7264
Ironworker (Reinforcing) (2010)	7264
Ironworker (Structural/Ornamental) (2010)	7264
Landscape Horticulturist (2010)	2225
Lather (Interior Systems Mechanic) (2007)	7284
Machinist (2010)	7231

*National Occupational Classification

TITLE	NOC* Code
Metal Fabricator (Fitter) (2008)	7263
Mobile Crane Operator (2009)	7371
Motorcycle Mechanic (2006)	7334
Motor Vehicle Body Repairer (Metal and Paint) (2010)	7322
Oil Burner Mechanic (2006)	7331
Painter and Decorator (2011)	7294
Partsperson (2010)	1472
Plumber (2010)	7251
Powerline Technician (2009)	7244
Recreation Vehicle Service Technician (2006)	7383
Refrigeration and Air Conditioning Mechanic (2009)	7313
Rig Technician (2008)	8232
Roofer (2006)	7291
Sheet Metal Worker (2010)	7261
Sprinkler System Installer (2009)	7252
Steamfitter — Pipefitter (2010)	7252
Tilesetter (2010)	7283
Tool and Die Maker (2010)	7232
Tower Crane Operator (2012)	7371
Transport Trailer Technician (2008)	7321
Truck and Transport Mechanic (2010)	7321
Welder (2009)	7265

Requests for printed copies of NOAs may be forwarded to:

Trades and Apprenticeship Division
Labour Market Integration Directorate
Human Resources and Skills Development Canada
140 Promenade du Portage, Phase IV, 5th Floor
Gatineau, Quebec K1A 0J9

These publications can be ordered or downloaded online at: www.red-seal.ca. Links to Essential Skills Profiles for some of these trades are also available on this website.

STRUCTURE OF ANALYSIS

To facilitate understanding of the occupation, the work performed by tradespersons is divided into the following categories:

Blocks	the largest division within the analysis that is comprised of a distinct set of trade activities
Tasks	distinct actions that describe the activities within a block
Sub-Tasks	distinct actions that describe the activities within a task
Key Competencies	activities that a person should be able to do in order to be called 'competent' in the trade

The analysis also provides the following information:

Trends	changes identified that impact or will impact the trade including work practices, technological advances, and new materials and equipment
Related Components	a list of products, items, materials and other elements relevant to the block
Tools and Equipment	categories of tools and equipment used to perform all tasks in the block; these tools and equipment are listed in Appendix A
Context	information to clarify the intent and meaning of tasks
Required Knowledge	the elements of knowledge that an individual must acquire to adequately perform a task

The appendices located at the end of the analysis are described as follows:

Appendix A — Tools and Equipment	a non-exhaustive list of tools and equipment used in this trade
Appendix B — Glossary	definitions or explanations of selected technical terms used in the analysis
Appendix C — Acronyms	a list of acronyms used in the analysis with their full name
Appendix D — Block and Task Weighting	the block and task percentages submitted by each jurisdiction, and the national averages of these percentages; these national averages determine the number of questions for each block and task in the Interprovincial exam
Appendix E — Pie Chart	a graph which depicts the national percentages of exam questions assigned to blocks
Appendix F — Task Profile Chart	a chart which outlines graphically the blocks, tasks and sub-tasks of this analysis

DEVELOPMENT AND VALIDATION OF ANALYSIS

Development of Analysis

A draft analysis is developed by a committee of industry experts in the field led by a team of facilitators from HRSDC. This draft analysis breaks down all the tasks performed in the occupation and describes the knowledge and abilities required for a tradesperson to demonstrate competence in the trade.

Draft Review

The NOA development team then forwards a copy of the analysis and its translation to provincial and territorial authorities for a review of its content and structure. Their recommendations are assessed and incorporated into the analysis.

Validation and Weighting

The analysis is sent to all provinces and territories for validation and weighting. Participating jurisdictions consult with industry to validate and weight the document, examining the blocks, tasks and sub-tasks of the analysis as follows:

BLOCKS	Each jurisdiction assigns a percentage of questions to each block for an examination that would cover the entire trade.
TASKS	Each jurisdiction assigns a percentage of exam questions to each task within a block.
SUB-TASKS	Each jurisdiction indicates, with a YES or a NO, whether or not each sub-task is performed by skilled workers within the occupation in its jurisdiction.

The results of this exercise are submitted to the NOA development team who then analyzes the data and incorporates it into the document. The NOA provides the individual jurisdictional validation results as well as the national averages of all responses. The national averages for block and task weighting guide the Interprovincial Red Seal Examination plan for the trade.

This method for the validation of the NOA also identifies common core sub-tasks across Canada for the occupation. If at least 70% of the responding jurisdictions perform a sub-task, it shall be considered common core. Interprovincial Red Seal Examinations are based on the common core sub-tasks identified through this validation process.

Definitions for Validation and Weighting

YES	sub-task performed by qualified workers in the occupation in a specific jurisdiction
NO	sub-task not performed by qualified workers in the occupation in a specific jurisdiction
NV	analysis Not Validated by a province/territory
ND	trade Not Designated in a province/territory
NOT COMMON CORE (NCC)	sub-task, task or block performed by less than 70% of responding jurisdictions; these will not be tested by the Interprovincial Red Seal Examination for the trade
NATIONAL AVERAGE %	average percentage of questions assigned to each block and task in Interprovincial Red Seal Examination for the trade

Provincial/Territorial Abbreviations

NL	Newfoundland and Labrador
NS	Nova Scotia
PE	Prince Edward Island
NB	New Brunswick
QC	Quebec
ON	Ontario
MB	Manitoba
SK	Saskatchewan
AB	Alberta
BC	British Columbia
NT	Northwest Territories
YT	Yukon Territory
NU	Nunavut

ANALYSIS

SAFETY

Safe working procedures and conditions, accident prevention, and the preservation of health are of primary importance to industry in Canada. These responsibilities are shared and require the joint efforts of government, employers and employees. It is imperative that all parties become aware of circumstances that may lead to injury or harm. Safe learning experiences and work environments can be created by controlling the variables and behaviours that may contribute to accidents or injury.

It is generally recognized that safety-conscious attitudes and work practices contribute to a healthy, safe and accident-free work environment.

It is imperative to apply and be familiar with the Occupational Health and Safety (OH&S) Acts and Workplace Hazardous Materials Information System (WHMIS) Regulations. As well, it is essential to determine workplace hazards and take measures to protect oneself, co-workers, the public and the environment.

Safety education is an integral part of training in all jurisdictions. As safety is an imperative part of all trades, it is assumed and therefore it is not included as a qualifier of any activities. However, the technical safety tasks and sub-tasks specific to the trade are included in this analysis.

SCOPE OF THE FLOORCOVERING INSTALLER TRADE

"Floorcovering Installer" is this trade's official Red Seal occupational title approved by the CCDA. This analysis covers tasks performed by floorcovering installers whose occupational title has been identified by some provinces and territories of Canada under the following names:

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
Floor Covering Installer						✓				✓			✓
Floorcovering Installer	✓	✓	✓	✓	✓		✓		✓		✓	✓	

Floorcovering installers install, replace and repair a variety of floorcoverings. They work with cushion, carpeting, vinyl, resilient tile, sheet flooring and seasonal carpet. In some jurisdictions, floorcovering installers may also install and repair pre-finished wood, unfinished wood, engineered wood, laminate and artificial turf. Floorcovering installers install and service floorcoverings in residential and industrial/commercial/institutional (ICI) settings.

In new building construction, floorcovering is one of the final procedures to be carried out. Floorcovering installers ideally begin their work after services (water, electricity, light, heat) are installed and walls are painted.

When replacing or repairing pre-existing floorcoverings, the work area must be cleared of furniture and appliances. Existing flooring, cushion and trim must often be removed. When repairing damaged areas, floorcovering installers perform tasks such as matching patterns and inserting pieces using specialty tools and equipment.

The preparation for floorcovering installation involves inspecting, measuring and cleaning surfaces onto which the floorcovering is to be installed. Preparation normally includes correcting surface imperfections such as cracks, chips and small holes, and sanding and filling wood substrates and/or underlayment panels.

Floorcovering installers may be responsible for site visits, planning, scheduling and estimating of jobs. They use blueprints, freehand drawings, scaled drawings, layout plans, shop drawings, work orders and finish schedules.

Self-employment is common in this trade. Some floorcovering installers are employed by flooring businesses (retail or wholesale), construction companies and contractors.

A growing number of floorcovering installers, especially those on the commercial side, work primarily in one area of specialization within the trade such as carpet or resilient flooring installation. Those working on the residential side need to know about a wide variety of flooring. Floorcovering installers may work closely with designers, engineers, architects and other tradespeople such as carpenters, painters, lathers (interior systems mechanics), drywallers and cabinetmakers.

Key attributes for people entering this trade are: good colour vision, hand-eye coordination, problem solving skills, mathematical skills, communication skills and organizational skills. Good physical condition is important because the work often requires considerable kneeling, stretching, twisting and lifting heavy, awkward loads.

Health and safety are important for these tradespeople as they are frequently in contact with chemical (e.g., paints, adhesives and other toxic materials) and physical (e.g., cutting tools, fastening tools and dust) hazards. Ongoing safety awareness and a good knowledge of safety standards and regulations are important.

With experience, journeypersons may move into supervisory, management and sales positions.

OCCUPATIONAL OBSERVATIONS

The increased awareness of the physical impacts of the work has resulted in the use of more effective tools such as mini-stretchers and power stretchers, as well as improved personal protective equipment (PPE) such as knee pads and back braces.

Upgrading courses, manufacturers' seminars and professional education courses are being offered for floorcovering installers to stay current with new trends and product innovations. The trade has also seen the need for new specialty skills such as rubber and polyvinyl chloride (PVC) welding and artificial turf installation. Intricate layouts are becoming common requiring skills for blueprint reading and design.

Environmental concerns and Leadership in Energy and Environmental Design (LEED) guidelines are pushing the trend towards environmentally friendly, energy efficient and naturally sustainable products. Cork and linoleum products, for example, are becoming increasingly popular due to their natural sound-deadening, insulating and antimicrobial characteristics. Bamboo and exotic floors are used as alternatives to domestic hardwood floors. Recycled products such as reclaimed wood flooring made from large beams and lumber taken from buildings slated for demolition, or rubber floor products made from recycled rubber are also gaining popularity in the industry. Carpets are being made from recycled materials such as plastic bottles and old carpeting, and sustainable products such as corn. Renewable materials such as wool are regaining popularity. Low or no volatile organic compounds (VOC) finishes and adhesives are becoming the industry standard for health and environmental reasons.

Continuous learning skills are required of floorcovering installers to adapt to these new tools, techniques and products.

ESSENTIAL SKILLS SUMMARY

Essential skills are needed for work, learning and life. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change.

Through extensive research, the Government of Canada and other national and international agencies have identified and validated nine essential skills. These skills are used in nearly every occupation and throughout daily life in different ways.

A series of CCDA-endorsed tools have been developed to support apprentices in their training and to be better prepared for a career in the trades. The tools can be used independently or with the assistance of a tradesperson, trainer, employer, teacher or mentor to:

- understand how essential skills are used in the trades;
- learn about individual essential skills strengths and areas for improvement; and
- improve essential skills and increase success in an apprenticeship program.

The tools are available online or for order at: www.hrsdc.gc.ca/essentialskills

The essential skills profile for the floorcovering installer trade indicates that the most important essential skills are **document use**, **numeracy** and **oral communication**.

The application of these skills may be described throughout this document within the competency statements which support each subtask of the trade. The following are summaries of the requirements in each of the essential skills, taken from the essential skills profile. A link to the complete essential skills profile can be found at www.red-seal.ca.

Reading
Floorcovering installers read a variety of texts. They read notes from contractors or supervisors on issues ranging from noise restrictions to special floor preparation requirements, or from architects and designers on topics such as product substitutions and timeline adjustments. They also read warranty procedures, cleaning instructions, product information sheets, material safety data sheets (MSDS) and equipment installation manuals.

Document Use
Floorcovering installers read signs, labels and lists. They complete various forms such as estimate forms to calculate labour and material costs, and they locate data on completed forms such as work orders to confirm locations and details of work to be completed. They also review specifications to identify sizes and shapes of floor spaces, types of flooring to be installed and installation procedures to be followed. Floorcovering installers interpret scale drawings such as blueprints or maps and take measurements from these drawings. They also draw to scale and make sketches.

Writing
Floorcovering installers write notes on work orders and floor layout plans to indicate additional services provided or to record mistakes and the use of substitute materials. They may also write notes to co-workers, customers or other tradespeople.

Numeracy
The math skills involved in the floorcovering installer trade include handling money, scheduling, budgeting and accounting, measurement and calculation, data analysis, and estimation.

Floorcovering installers may prepare and verify invoices by itemizing prices and costs of materials and calculating labour charges and applicable taxes. They create work schedules based on project size, availability of workers and materials, and clients' timelines. They take measurements using a variety of tools such as floor length and width using tapes and rulers, or moisture content of concrete floors using hygrometers. They also calculate the area of rooms and determine the quantity of carpet, vinyl, tiles or hardwood required. They use geometric construction methods to lay out lines and to create patterns. They also estimate amounts of products required, sizes of rooms and time required to complete an installation.

Oral Communication
Floorcovering installers discuss ongoing work with co-workers, contractors and other tradespeople to review task sequences and project timelines and to confirm flooring substitutions or changes to specifications. They may provide direction to apprentices or new employees. They may also speak to customers to suggest changes in flooring designs and product options, or to explain warranties and proper maintenance of installed flooring.

Thinking Skills
Floorcovering installers use their problem solving skills to resolve issues such as missing materials, faulty tools, delays created by other trades or incorrect drawings and specifications. They may plan sequence of staging, order new supplies, adjust their work schedules or ask for direction from supervisors.

They use decision making skills to select equipment, materials and installation methods, sequences and layouts to complete various flooring installations. They also use critical thinking skills to assess the suitability of materials and products selected. For example, when laying hardwood floors, they visually check each board for defects and they inspect the sub-floors for flaws to ensure that the quality of the finished installation is not compromised. They also consider factors such as manufacturers' specifications, traffic flow patterns and exposure to extreme temperatures, high moisture levels and direct sunlight.

Working with Others
Floorcovering installers coordinate tasks with small crews and other trades to ensure efficient use of time and to meet installation timelines. They may work with apprentices and they may participate in supervisory or leadership activities.

Computer Use
Floorcovering installers may use the Internet to search suppliers' or manufacturers' websites for information on flooring tools, products and specifications. They may also use computer programs for business applications such as invoicing and estimating.

Continuous Learning
Floorcovering installers learn on the job and through their daily interactions with co-workers. They may attend courses offered by product manufacturers. They also read manufacturers' product manuals, information sheets and trade magazines to stay current on technological advancements in the trade.

ROLES AND OPPORTUNITIES FOR SKILLED TRADES IN A SUSTAINABLE FUTURE

Climate change affects all of us. Trades play a large role in implementing solutions and adjusting to changes in the world.

Throughout this standard, there may be specific references to tasks, skills and knowledge that clearly show this trade's role in a more sustainable future. Each trade has different roles to play and contributions to make in their own way.

For example:

- Construction tradespeople need to consider the materials they are using, building methods, and improvements to mechanical and electrical installations. There are important changes to codes and standards to help meet the climate change goals and commitments set for 2030 and 2050. Retrofits and new construction of low-energy buildings provide enormous opportunities for workers in this sector. Concepts, such as energy efficiency and regarding buildings as systems are foundational.

- Automotive and mechanical trades are seeing a shift towards the electrification of vehicles and equipment. As a result, new skills and knowledge will be required for tradespeople working in this sector. There are mandates for sales of new light-duty zero-emission vehicles (ZEV) in Canada, with the goal of achieving 100% ZEV sales by 2035. Due to this mandate, the demand for these vehicles is growing quickly among consumers and fleets. With this escalating demand, the need for skilled workers to maintain and repair these vehicles is also increasing.

- In industrial and resource sectors, there is pressure to move towards increased electrification of industrial processes. Many industrial and commercial facilities are also being upgraded to improve energy efficiency in areas such as lighting systems, and new production processes and technologies. There are also opportunities in carbon capture, utilization and storage (CCUS), as well as the production and export of low-carbon hydrogen.

- Trades in the service sector may also need to be aware of responsible sourcing, as well as efficient use of products and materials. New ways of working better are always a part of the job.

There are fast-moving changes in guidelines, codes, regulations and specifications. Many are being implemented for the purpose of energy efficiency and climate change. Those that affect specific trades may be mentioned within the standard. Examples of these guidelines and legislation include:

- The National Energy Code of Canada for Buildings (NECB).
- The Canadian Net-Zero Emissions Accountability Act (CNZEAA).
- programs that encourage sustainable building design and construction such as Leadership in Energy and Environmental Design (LEED) and the Zero Carbon Building (ZCB) standards.
- the Montreal Protocol for phasing out R22 refrigerants.
- energy efficiency programs such as ENERGY STAR.
- principles of the United Nations Declaration for the Rights of Indigenous Peoples pertaining to energy sector development.

Apprentices and tradespeople need to increase their climate literacy and reinforce their own understanding of energy issues and environmental practices. It is important for them to understand why these changes are happening and their effect on trades' work. While individual tradespeople and apprentices may not be able to choose certain elements like; the architectural design of buildings, building material selection, regulatory requirements, use of electric vehicles and technologies, they must understand the impact of using these elements in their work. Impacts include using environmentally friendly products and following requirements related to the disposal and recycling of materials.

In apprenticeship, as well as in ongoing professional development, employers and instructors should encourage learning about these concepts, why they are important, how they are implemented, and the overarching targets they are aiming to achieve.

All in all, it's about doing the work better and building a better world.

BLOCK A COMMON OCCUPATIONAL SKILLS

Trends

Safety on worksites, including the mandatory wearing of PPE, participating in toolbox meetings and completing safety documentation continues to be emphasized.

New techniques and devices for moisture testing are being introduced.

Related Components

All components apply.

Tools and Equipment

See Appendix A.

Task 1 Performs safety related functions.

Context

Attention to safety is very important in the floorcovering trade. It includes using PPE and safety equipment, maintaining a safe work environment and maintaining tools and equipment in safe working order.

Required Knowledge

K 1	types of PPE and safety equipment such as hard hats, CSA-approved protective footwear, hearing protection and safety glasses
K 2	PPE operations
K 3	workplace health and safety regulations
K 4	WHMIS documentation such as MSDS and labels, and their location
K 5	components of a safe work environment
K 6	safe lifting practices
K 7	potential worksite hazards such as propane heaters, flammable adhesives, open holes, loose clothing, working at heights and overhead hazards
K 8	jurisdictional safety regulations
K 9	evacuation and emergency procedures
K 10	first aid requirements and location of supplies
K 11	types of hand tools such as hand cutting, abrading, fastening, prying, stretching, layout, marking, measuring, trowelling and floor preparation tools
K 12	types of portable power tools such as battery powered and gas powered

K 13	manufacturers' specifications
K 14	tool hazards such as dull blades, frayed cords and missing safety guards

---

Sub-task

A-1.01 Uses personal protective equipment (PPE) and safety equipment.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-1.01.01	select PPE according to each task to be performed and worksite conditions
A-1.01.02	fit PPE such as respirators, footwear and hard hats
A-1.01.03	identify faulty and defective PPE and safety equipment and tag
A-1.01.04	insert filters according to the environment and type of respirator

---

Sub-task

A-1.02 Maintains safe work environment.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-1.02.01	place guard rails and barricades around potentially hazardous areas
A-1.02.02	identify hazards such as products which may contain asbestos
A-1.02.03	report hazards and refuse unsafe work conditions
A-1.02.04	participate in toolbox safety meetings to identify safe work practices, near misses and changing worksite conditions
A-1.02.05	maintain clean and obstruction-free work environment
A-1.02.06	create positive ventilation to ensure hazardous gases and particles are ventilated from working area
A-1.02.07	ensure tools are used for the purpose they were intended

Sub-task

A-1.03 Maintains tools and equipment.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-1.03.01	perform PPE and safety equipment maintenance such as checking expiration dates, cleaning and replacing components
A-1.03.02	repair tools using procedures such as sharpening blades and replacing power cords
A-1.03.03	clean and lubricate tools and equipment according to manufacturers' recommendations
A-1.03.04	organize and store tools and equipment
A-1.03.05	document tool maintenance and repairs

Task 2 Assesses floor and jobsite conditions.

Context Assessing the floor and jobsite conditions is important to ensure a proper and fully warranted installation by manufacturers' specifications.

Required Knowledge

K 1	jobsite condition and readiness
K 2	effects of grade level on various floorcoverings
K 3	manufacturers' recommendations regarding grade level
K 4	types of sub-floors and substrates such as concrete, wood, metal and ceramic
K 5	gauge of finished trim
K 6	basic construction principles such as floor integrity and substrate composition
K 7	asbestos-containing products and available tests
K 8	types of moisture tests such as calcium chloride, mat tests, meters and relative humidity (RH) tests
K 9	alkalinity test (pH)
K 10	bond tests
K 11	floorcovering to be installed

K 12	floor preparation materials available
K 13	industry standards in terms of final inspections
K 14	customer expectations

Sub-task

A-2.01 Performs quality control.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-2.01.01	assess environmental conditions such as temperature, humidity, ventilation, dust and light
A-2.01.02	inspect product quality before and during installation to identify product deficiencies and defects, including pattern run-off
A-2.01.03	resolve discrepancies between industry standards, salespeople commitments and customer expectations before installation

---

Sub-task

A-2.02 Assesses floor and sub-floor conditions and deficiencies.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-2.02.01	identify above-grade, on-grade and below-grade sub-floors
A-2.02.02	determine substructure such as floor joists, carriage supports for stairs and concrete
A-2.02.03	determine structural soundness of substrates such as ceramic tile, existing vinyl, wood and concrete
A-2.02.04	identify in-floor radiant heating and requirements needed to complete job
A-2.02.05	recognize signs of asbestos such as age of material, size of material and colour of adhesives
A-2.02.06	check floor tolerances using tools such as straightedges, measuring tapes and levels

A-2.02.07	recognize wood floor deficiencies such as delamination, open joints, squeaks and loose areas
A-2.02.08	identify types of contaminants such as oil, ink, paint, dust, varnish, parting compound and adhesives
A-2.02.09	determine floor preparation required such as floor levelling, patching or sub-floor replacement
A-2.02.10	identify the number of layers on existing floor

Sub-task

A-2.03 Conducts field tests.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-2.03.01	perform moisture tests to identify moisture level in substrate
A-2.03.02	perform bond tests to verify effectiveness of adhesive on substrate
A-2.03.03	perform temperature readings to allow for product processes such as curing, setting and acclimation
A-2.03.04	interpret field results within industry standards

Task 3 Organizes work.

Context Floorcovering installers demonstrate organizational skills to ensure the project's success from start to finish. They must make good use of time and materials in a cost efficient way.

Required Knowledge

K 1	product requirements
K 2	accessibility requirements
K 3	jobsite safety and security
K 4	floorcovering operations and time required to complete each operation
K 5	basic mathematical formulas
K 6	standard widths of materials in both metric and imperial measures
K 7	pattern matching principles

K 8	manufacturers' recommendations and specifications for flooring materials such as dye lot sequence and pile direction
K 9	material handling requirements such as individual lifting weight restrictions
K 10	carpet types, styles, patterns and construction
K 11	backing for carpet and resilient flooring
K 12	types of resilient flooring such as vinyl composite tile (VCT), linoleum, sheet vinyl and rubber
K 13	wear layers in resilient and laminate flooring
K 14	gauges and thicknesses of resilient flooring
K 15	types of wood species such as maple, oak and cherry, and their characteristics
K 16	pre-finished wood and laminate fastening and installation systems
K 17	product dimensions, construction and characteristics
K 18	pre-finished wood construction types such as solid, engineered and laminate
K 19	cushion density, weight, width and materials
K 20	fastening and installation methods of cushion
K 21	types of adhesives and their compatibility with flooring and substrate
K 22	manufacturers' recommended uses for adhesives
K 23	environmental specifications and regulations for use of adhesives
K 24	types and fastening methods for trims and accessories
K 25	flooring product finishing requirements

Sub-task

A-3.01 Plans sequence of installation.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-3.01.01	coordinate work with other trades such as tilesetters, painters, plumbers and electricians
A-3.01.02	coordinate work with site supervisor
A-3.01.03	identify product sequencing information such as dye lots and batch numbers
A-3.01.04	identify start point and organize time to allow for tasks to be performed during wait times such as adhesive setting or floor patch drying time
A-3.01.05	follow and adjust schedule accounting for factors such as acclimation requirements, material delivery and other trade delays

Sub-task

A-3.02 Handles materials.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-3.02.01	dispose and sort materials for recycling according to jurisdictional regulations and industry guidelines such as LEED
A-3.02.02	lift material using equipment such as pallet jacks, dollies and hand carts
A-3.02.03	package and dispose of hazardous materials such as adhesives and asbestos-containing products
A-3.02.04	store material according to industry practices to prevent damage and safety hazards
A-3.02.05	ensure delivery is completed in time to allow for acclimation
A-3.02.06	plan access to worksite through tight and awkward spaces
A-3.02.07	store materials in designated location during installation
A-3.02.08	salvage materials for reinstallation

Sub-task

A-3.03 Determines layouts and materials needed for job.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-3.03.01	determine amount of material required for room dimensions according to product to be installed
A-3.03.02	take measurements of room dimensions
A-3.03.03	sketch seaming diagram to allow for waste, overlap and fills
A-3.03.04	allow extra material for pattern matching and seam allowance
A-3.03.05	determine seam locations to minimize seam visibility, cross seams and waste factors
A-3.03.06	determine fill sizes according to product

Task 4 — Installs transitions, trims and wall bases.

Context Installing transitions, trims and wall bases is done as part of flooring installations to achieve a finished look. It is also done to protect raw edges and provide transitions between surfaces.

Required Knowledge

K 1	types of transitions such as vinyl reducers, butt edge strips, wood and metal
K 2	types of trims such as quarter rounds, shoe moulds, nosings, bullnose pieces and capping
K 3	transition and trim fastening techniques and materials
K 4	wall base fastening techniques and composition such as vinyl, carpet, rubber and wood
K 5	pre-formed corners
K 6	fabrication procedures for transition strips and trims

Sub-task

A-4.01 Installs transitions and trims.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-4.01.01	identify type of transition and trim required for installation
A-4.01.02	measure and cut transitions and trims according to installation requirements
A-4.01.03	mitre transitions and trims to fit and provide a smooth transition from one finish to another
A-4.01.04	prepare surface of transitions and trims using methods such as sanding, cleaning and priming
A-4.01.05	fasten transitions and trims in place according to manufacturers' specifications

Sub-task

A-4.02 Installs resilient wall base.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-4.02.01	dry fit and cut base along wall perimeter using tools such as dividers, squares, base groovers and scribers
A-4.02.02	mitre base to fit and provide a smooth transition from one finish to another
A-4.02.03	fabricate and groove back of base to perform outside corner installation
A-4.02.04	select and apply amount of adhesive required for complete adhesion according to manufacturers' specifications
A-4.02.05	smooth wall base using methods such as wiping with wet cloth and hand rolling
A-4.02.06	maintain consistent floor-to-wall transition, ensuring that the bottom of the base stays in contact with the floor

Sub-task

A-4.03 Installs carpet wall base.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-4.03.01	cut and fit wall base to pre-determined height using tools such as carpet base cutter and cushion back cutter
A-4.03.02	fasten using mechanical fasteners according to installation conditions and industry practices
A-4.03.03	apply amount of adhesive required for complete adhesion according to manufacturers' specifications
A-4.03.04	smooth wall base by rubbing with hand and using rollers
A-4.03.05	maintain consistent floor-to-wall transition, ensuring that the bottom of the base stays in contact with the floor
A-4.03.06	complete wall base installation by performing return cut at exposed ends (open ends)

Sub-task

A-4.04 Installs wood wall base.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

A-4.04.01	dry fit and cut base along wall perimeter using tools such as mitre saws, coping saws, dividers, squares and scribers
A-4.04.02	mitre base to fit and provide a smooth transition from one finish to another
A-4.04.03	fabricate and cope back of base to ensure tight joints
A-4.04.04	prepare base for installation on curved walls using procedures such as soaking and back cutting
A-4.04.05	nail wall base to studs for secure fastening using compressor and nailer
A-4.04.06	apply amount of adhesive required for complete adhesion according to manufacturers' specifications
A-4.04.07	maintain consistent floor-to-wall transition, ensuring that the bottom of the base stays in contact with the floor
A-4.04.08	complete wall base installation by performing return cut at exposed ends (open ends)
A-4.04.09	apply coloured wood filler to hide imperfections such as nail holes and gaps
A-4.04.10	apply bead of caulking for top of moulding such as base and quarter round

BLOCK B FLOOR PREPARATION

Trends	Self-levelling products are increasing in use for commercial applications and general use. Eco-friendly products, reclamation and recycling, and proper disposal according to LEED guidelines are becoming more common.
Related Components (including, but not limited to)	Resilient sheet goods, carpet, cushion, VCTs, trims, adhesives, tackless strips, fasteners, base, patching compounds, self-levelling products, primers, product additives, bonding agents, sealers, trowelled underlayment, underlayment panels, moisture reduction barriers
Tools and Equipment	Basic hand tools, power tools and equipment, PPE and safety equipment, moisture meters

Task 5 Removes existing floorcovering and accessories.

Context This task includes removal of old wall bases, trims, floorcoverings and accessories in a safe manner with proper tools without damaging any surrounding surfaces. Safe disposal and recycling of materials is important.

Required Knowledge

K 1	types of wall bases and trims
K 2	fasteners such as glues, staples and nails
K 3	existing floorcovering installation method used such as for carpet, resilient flooring, cushions and pads, and wood and laminate flooring
K 4	floorcovering removal techniques such as for carpet, resilient flooring (chipping, heating, stripping manually and by machine), wood and laminate flooring, and underlayment
K 5	disposal methods and regulations
K 6	asbestos-containing products
K 7	provincial and territorial regulations regarding removal and disposal of asbestos-containing products
K 8	jurisdictional recycling practices and reclamation programs
K 9	use of specialty tools such as mechanical floor strippers, shot blasters and sanders

Sub-task

B-5.01 Removes transitions, trims and wall bases.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

B-5.01.01	score top of base and trim to prevent damage to wall finish
B-5.01.02	pry and peel transitions, trims and bases using tools such as putty knives, quarter round lifters and pry bars, preventing damage to wall finishes to prepare for new material installation
B-5.01.03	remove old adhesives and fasteners from wall to accept new finish
B-5.01.04	remove old adhesives and fasteners from transitions, trims and bases to prevent damage and to salvage for reinstallation
B-5.01.05	number wall and back of wall base and trim for ease of reinstallation

Sub-task

B-5.02 Removes carpet.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

B-5.02.01	cut carpet into strips using knives and pry carpet to peel it off the floor
B-5.02.02	lift pad and fasteners such as tackless strips and staples preventing damage to existing finished surfaces
B-5.02.03	dispose of material according to local and jurisdictional regulations
B-5.02.04	salvage materials for reinstallation
B-5.02.05	scrape residue from existing pad

Sub-task

B-5.03 Removes resilient flooring.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

B-5.03.01	cut, pry and scrape material using tools such as scrapers and stripping machines while preventing damage to existing finished surfaces
B-5.03.02	dispose of material according to local and jurisdictional regulations

Sub-task

B-5.04 Removes wood, laminate flooring and underlayment.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

B-5.04.01	score, cut and lift material while preventing damage to existing finished surfaces using tools such as circular saws, toe-kick saws and crowbars
B-5.04.02	pull up pads, barriers and fasteners using tools such as pliers, pry bars and claw hammers
B-5.04.03	dispose of material according to local and jurisdictional regulations
B-5.04.04	salvage materials for reinstallation

Task 6 Prepares substrate.

Context This task includes the installation of trowelled and rigid underlayments, and the preparation of substrates for installation of various floorcoverings. The removal of floor contaminants is an important first step in this task.

Required Knowledge

K 1	removal techniques such as scraping, sanding, and by chemical and mechanical means
K 2	disposal methods and regulations

K 3	concrete floor composition such as lightweight concrete and radiant heated slab
K 4	manufacturers' recommendations on the use of remedial products such as patching compounds, self-levelling products, levelling compounds, moisture reduction barriers, bonding agents and sealers
K 5	wood floor construction such as structural soundness and location of joists
K 6	in-floor heating systems
K 7	wood floor fastening techniques
K 8	manufacturers' recommendations on specialty substrates such as metal, terrazzo, ceramic and quarry tile
K 9	number of layers of existing floorcovering
K 10	manufacturers' recommendations for preparation of floorcovering
K 11	surface deficiencies such as delamination, wax build-up and damage
K 12	manufacturers' recommendations regarding the use of trowelled and rigid underlayment
K 13	types of trowelled underlayment products and additives
K 14	construction of rigid underlayment panels
K 15	fastening techniques for rigid underlayment panels

Sub-task

B-6.01 Removes contaminants.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

B-6.01.01	scrape, chip, sand and strip floor to remove contaminants such as oil, ink, paint, dust, varnish, parting compounds and adhesives while preventing damage to finished surfaces
B-6.01.02	rinse floor to remove residues such as degreasers, trisodium phosphate (TSP), muriatic acid and adhesive removers
B-6.01.03	vacuum, sweep and damp mop floor to remove dust and adhesive

Sub-task

B-6.02 Prepares concrete floors and underlayment.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

B-6.02.01	check and mark concrete for cracks, low spots and deviations
B-6.02.02	apply primers, sealers and bonding agents according to manufacturers' specifications
B-6.02.03	encapsulate contaminants by applying patching compounds for scratch coat and skim coat
B-6.02.04	apply patching and levelling compounds according to manufacturers' specifications to achieve a smooth, flat floor
B-6.02.05	scarify floor according to industry standards
B-6.02.06	vacuum, sweep and damp mop floor to remove dust

Sub-task

B-6.03 Prepares wood floors and underlayment.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

B-6.03.01	fill and sand wood panel joints to achieve a flush finish
B-6.03.02	secure loose and squeaking boards or panels using fasteners and adhesives such as staples, nails, screws, wood glues and construction adhesives
B-6.03.03	reinforce structural soundness by adding more sub-floor
B-6.03.04	apply primers, sealers and bonding agents according to manufacturers' specifications
B-6.03.05	encapsulate contaminants by applying patching compounds for scratch coat and skim coat
B-6.03.06	apply patching and levelling compounds according to manufacturers' specifications to achieve a smooth, flat floor
B-6.03.07	sand and vacuum floor according to industry standards

Sub-task

B-6.04 Prepares specialty floors.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

B-6.04.01	strip and abrade surface to accept patching and levelling compounds and bonding agents
B-6.04.02	lay down specialty sheeting such as suspended sub-floor, fibreglass and cement board
B-6.04.03	apply primers and sealers over metal and ceramic floors according to manufacturers' specifications
B-6.04.04	apply patching and levelling compounds

Sub-task

B-6.05 Installs trowelled underlayment.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

B-6.05.01	abrade/scarify surface to manufacturers' specifications for mechanical bond
B-6.05.02	apply primers, sealers and bonding agents according to manufacturers' specifications
B-6.05.03	apply patching and levelling compounds according to manufacturers' specifications

Sub-task

B-6.06 Installs rigid underlayment panels.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

B-6.06.01	undercut jambs and trims to allow for expansion and contraction according to manufacturers' specifications
B-6.06.02	lay sheets perpendicular to the sub-floor sheets
B-6.06.03	stagger joints to manufacturers' recommendations
B-6.06.04	apply and space fasteners according to manufacturers' recommendations
B-6.06.05	apply adhesives such as construction adhesives and wood floor adhesives according to manufacturers' recommendations
B-6.06.06	measure, cut and fit underlayment allowing for expansion and contraction according to manufacturers' specifications
B-6.06.07	sand and patch seams according to industry standards
B-6.06.08	determine type of fasteners to be used based on manufacturers' recommendations

BLOCK C CARPET

Trends	Within carpet installations, there is an increase in patterned carpets and more complex designs. In commercial carpeting, there is an increase in the use of cushion-attached carpet and modular carpet tile. There is an increase in environmental concerns resulting in more recycled and recyclable materials. The use of artificial turf is becoming more popular for replacing natural grass.
Related Components (including, but not limited to)	Carpet (rolls and tiles), tackless strips (smoothedge), accessories (transition trims, mouldings), fasteners, cushion, adhesives, seaming tape, binding tape, sealers, turf, inserts, turf filler (sand and rubber pellets), vinyl and carpet base, area rugs, runners.
Tools and Equipment	Basic hand tools, power tools and equipment, specialized carpet tools and equipment, specialized turf tools and equipment, PPE and safety equipment.

Task 7 Installs carpet.

Context This task involves cutting, positioning, seaming, stretching and gluing carpet and cushion using tools such as cutters, spreaders, power stretchers, seaming irons and a wide selection of adhesives. The methods used include conventional, direct glue-down, double-bond as well as modular tiles and peel-and-stick. The task covers carpets such as indoor/outdoor, woven, tufted, fusion-bonded, flocked, needle-punched and turf.

Required Knowledge

K 1	carpet types such as indoor/outdoor, woven, tufted, fusion-bonded, flocked, needle-punched, wool, wool polyester blend, walk off mats and turf
K 2	carpet construction for seaming and stretching purposes
K 3	types of tackless strips and their applications
K 4	acclimation requirements
K 5	fastening methods for cushion and accessories
K 6	carpet layout considerations such as dye lot sequence, direction of pile lay and location of seams, fills and cross seams

K 7	manufacturers' recommendations such as adhesive spread rate, working time, open time, curing time, trowel notch size and rolling procedures
K 8	stretching procedures for materials such as woven and tufted carpets, and proprietary backings
K 9	types of carpet backings
K 10	types of seam sealers
K 11	carpet cushion compatibility for double-bond carpet installation
K 12	carpet seam and cushion seam placement
K 13	types and sizes of modular carpet tiles
K 14	carpet pattern repeats
K 15	conventional seaming methods such as heat bond, latex bond, hand sewing, cold tape and induction heating iron
K 16	glue-down seaming methods such as trace cutting, double cutting, row cutting and serpentine cutting
K 17	double-bond seaming methods such as using an induction heating iron and regular seaming iron
K 18	hand sewing methods
K 19	turf seaming methods
K 20	types of adhesives and their appropriate uses such as for release carpet and double-bond installations
K 21	procedures and techniques for release carpet installations
K 22	procedures and techniques for peel-and-stick carpet installations

---

Sub-task

C-7.01 Cuts carpet for installation.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-7.01.01	square end cuts of roll using squaring techniques such as T-square, 3-4-5 method and lapping back, taking patterns into consideration to avoid waste and shortages
C-7.01.02	make multiple square cuts from roll, taking into consideration sequence of cuts in order to maintain consistent shading and pattern

Sub-task

C-7.02 Installs carpets by conventional method.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-7.02.01	cut and fit tackless strips and carpet cushion using cutting tools such as cutters, snips and knives
C-7.02.02	install tackless strips with proper gully around all vertical surfaces using fastening techniques according to substrate
C-7.02.03	install carpet cushion using fastening techniques according to substrate to avoid waste and overlapping of seams
C-7.02.04	position carpet taking into consideration pile direction, pattern match and seam placement
C-7.02.05	determine stretch sequence according to layout of floor, pattern of carpet and manufacturers' specifications to avoid carpet failures
C-7.02.06	determine and adjust seaming method such as hand sewing and using 6-inch tape or induction heating iron and seam sealers according to products used such as loop pile, woven and cut pile
C-7.02.07	cut and seam woven carpet according to manufacturers' recommendations
C-7.02.08	stretch carpet according to manufacturers' specifications using tools such as power stretchers, mini-stretchers and knee-kickers taking into consideration pattern alignment along walls
C-7.02.09	trim and fit carpet according to products used and vertical surfaces using tools such as wall trimmers, tucking tools and knives

Sub-task

C-7.03 Installs carpets by direct glue-down method.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-7.03.01	position and cut carpet taking into consideration pile direction, pattern match and seam placement
C-7.03.02	prepare seams by cutting carpet according to manufacturers' specifications

C-7.03.03	apply adhesive using methods such as spraying, rolling and trowelling while maintaining consistent spread rate throughout application according to manufacturers' guidelines
C-7.03.04	seal seams using seam sealer according to manufacturers' recommendations to avoid fraying of pile or tufts
C-7.03.05	trim and fit carpet according to products used and vertical surfaces using tools such as wall trimmers, tucking tools and knives
C-7.03.06	manipulate pattern alignment after installation by power stretching, using restretcher (crab) and stay nailing
C-7.03.07	roll glue-down materials according to manufacturers' recommendations

---

Sub-task

C-7.04 Installs carpets by double-bond method.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-7.04.01	install carpet cushion according to manufacturers' specifications to avoid waste and overlapping of seams
C-7.04.02	position carpet taking into consideration pile direction, pattern match and seam placement
C-7.04.03	prepare seams by cutting carpet according to manufacturers' specifications
C-7.04.04	apply adhesive using methods such as spraying, rolling and trowelling while maintaining consistent spread rate throughout application and allowing open time according to manufacturers' guidelines
C-7.04.05	seal seams using seam sealer according to manufacturers' recommendations to avoid fraying of pile or tufts
C-7.04.06	trim and fit carpet according to products used and vertical surfaces using tools such as wall trimmers, tucking tools and knives
C-7.04.07	manipulate pattern alignment during installation by power stretching, using restretcher (crab) and stay nailing
C-7.04.08	determine and adjust seaming method such as using 6-inch tape, induction heating iron, seaming iron and seam sealers according to products used
C-7.04.09	roll glue-down materials according to manufacturers' recommendations

Sub-task

C-7.05 Installs modular carpet tiles.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-7.05.01	apply adhesive to substrate according to manufacturers' specifications and products used
C-7.05.02	place carpet tiles in pyramid formation while maintaining working line consistency
C-7.05.03	place carpet tiles following guidelines for directional installation using methods such as quarter-turn, monolithic and ashlar
C-7.05.04	trim and fit modular carpet tiles according to products used and vertical surfaces using tools such as 2-foot squares, wall trimmers, tucking tools and knives

Sub-task

C-7.06 Completes carpet installation.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-7.06.01	remove excess adhesive from surface fibres using cleaning products such as water, solvent-based cleaners and mineral spirits
C-7.06.02	trim loose backing fibre and tufts using shears
C-7.06.03	tuck and finish carpet at doorways and trims using tucking tools
C-7.06.04	re-roll glue-down material according to manufacturers' recommendations to ensure transfer and bonding of adhesive

Task 8 Performs custom carpet procedures.

Context This task involves installing borders and insets, binding, upholstering, constructing and installing area rugs and runners, and installing carpet and runners on stairs. The methods used include conventional, direct glue-down, double-bond as well as modular and peel-and-stick tiles.

Proper stretching and seaming is important especially for stairs due to high liability issues. Knowledge of proper fastening techniques according to the job to be done is also important.

Required Knowledge

K 1	carpet construction such as woven, tufted, flocked and fusion-bonded
K 2	procedures and recommendations for border and inset installation
K 3	procedures, techniques and products (binding tapes, serging and fringes) for binding
K 4	carpet upholstery concepts and techniques
K 5	procedures, techniques and cushions used for area rugs and runners
K 6	types of adhesives and their appropriate uses
K 7	recommendations for tackless strip and cushion installation
K 8	types of stair construction such as boxed, open-ended, double-ended, pie and bullnose
K 9	types of stair finishes such as waterfall, cap and band, full wrap and upholstered
K 10	stair installation procedures such as sequencing and maintaining pattern integrity
K 11	stair runner fastening methods
K 12	alignment techniques for regular and irregular stairs
K 13	carpet edge finishing techniques on stairs such as binding and turn-and-tuck
K 14	product limitations for stair applications

Sub-task

C-8.01 Installs borders and insets.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-8.01.01	establish layout of design according to drawings or end-users' preferences such as narrow multi-coloured borders and insets, and geometric shapes
C-8.01.02	lay out carpet pieces so that pile lay direction and pattern flow with main carpet or other border pieces
C-8.01.03	cut mitres where borders and insets meet and intersect using cutting methods such as trace cutting, cutting from the back and row-to-row
C-8.01.04	attach pieces (taken from rolls, carpet tiles or runners) to field carpet using methods such as conventional, direct glue-down or double-bond, while maintaining consistent lines and appropriate stretch

Sub-task

C-8.02 Binds carpet.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	no	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-8.02.01	prepare carpet edge by trimming or shaving off loose tufts
C-8.02.02	attach binding tape to carpet edge using machine binding, stapling and hand sewing methods
C-8.02.03	complete binding by wrapping binding tape and sealing loose ends with latex or hot melt glue

Sub-task

C-8.03 Upholsters carpet.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-8.03.01	finish inside and outside corners on posts, walls and other three-dimensional objects
C-8.03.02	wrap carpet under lips and nosings and join using methods such as hand sewing, gluing and stapling
C-8.03.03	fasten carpet to structure using staples, nails and adhesives

Sub-task

C-8.04 Assembles area rugs and runners.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	no	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-8.04.01	construct area rugs and runners to specified shape and design using borders and insets, following appropriate seaming method
C-8.04.02	finish edges of rugs and runners using methods such as using binding tape, serging and fringing
C-8.04.03	position area rugs and runners over cushion to ensure durability of carpet and to limit movement

Sub-task

C-8.05 Installs carpet and runners on stairs.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-8.05.01	measure and cut carpet to fit stair dimensions to maintain pattern integrity taking into consideration pile direction and seam placement around objects such as spindles
C-8.05.02	fit carpet and runners to contour of stairs using fastening methods such as adhesives, tackless strips, nails, staples and seam sealers to maintain joint and pattern alignment
C-8.05.03	install stair rods and eyes into crotch of stair to achieve decorative appearance, or to facilitate carpet rotation
C-8.05.04	join carpet edges using methods such as hand sewing, gluing and stapling

Task 9 Installs artificial turf. (NOT COMMON CORE)

Context This task involves the installation of artificial turf including borders, insets and logos for use in sports fields, playgrounds and golf facilities. For large installations, working as part of a team is crucial at all times.

Required Knowledge

K 1	blueprint reading principles
K 2	turf seaming techniques such as gluing and sewing
K 3	shearing techniques
K 4	use of transits and lasers
K 5	brushing, raking and spreading techniques

Sub-task

C-9.01 Establishes layout and grid lines for artificial turf. (NOT COMMON CORE)

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	no	yes	yes	no	ND	no	no	NV	NV	NV

Key Competencies

C-9.01.01	lay out design according to drawings
C-9.01.02	determine centre point for installation based on field type
C-9.01.03	mark grid lines using transits and lasers

Sub-task

C-9.02 Assembles artificial turf sections. (NOT COMMON CORE)

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	no	yes	yes	no	ND	no	no	NV	NV	NV

Key Competencies

C-9.02.01	measure widths of turf sections and shear off tufts to top of backing as required to ensure consistent widths
C-9.02.02	hand stretch turf sections using carpet clamps, and maintain straight lines and proper tension while rolling with a motorized turf roller
C-9.02.03	seam sections according to manufacturers' specifications

Sub-task

C-9.03 Installs artificial turf insets. (NOT COMMON CORE)

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	no	yes	yes	no	ND	no	no	NV	NV	NV

Key Competencies

C-9.03.01	shear tufts to create markings such as lines, shapes and numbers
C-9.03.02	trace cut desired logo and shape through turf and backing
C-9.03.03	place and secure logos, shapes and other markings using adhesive specified by manufacturer

Sub-task

C-9.04 Completes artificial turf installation. (NOT COMMON CORE)

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	no	yes	yes	no	ND	no	no	NV	NV	NV

Key Competencies

C-9.04.01	brush turf with mechanical sweeper to lift pile
C-9.04.02	fill turf area with sand and rubber granules using a spreader according to manufacturers' specifications while maintaining a consistent rate of spread
C-9.04.03	finish installation by raking around markings and cutting uneven tufts

Task 10 Services carpet installations.

Context This task involves the repair of damaged materials (carpet, carpet tiles, cushion, accessories, turf) using repair techniques consistent with the installation method used. Pattern match and pile direction should be maintained to achieve a visually pleasing repair.

Required Knowledge

K 1	carpet construction such as woven and tufted
K 2	carpet types such as indoor/outdoor, modular carpet tiles and loop pile

K 3	carpet repair techniques such as cutting, re-stretching, seaming and patching
K 4	carpet spot cleaning techniques
K 5	method of installation used for existing carpet
K 6	specialty tools such as cookie cutters, tufting kits and sewing tools
K 7	fastening devices such as irons and adhesives
K 8	pattern matching
K 9	substrate conditions and deficiencies

Sub-task

C-10.01 Repairs carpet installed by conventional method.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-10.01.01	cut out damaged area using tools such as cookie cutters, cushion back cutters and knives
C-10.01.02	replace cut out area with on-site material to match existing carpet, taking into consideration pile direction and pattern
C-10.01.03	re-stretch and refit carpet that has buckled using tools such as power stretchers, mini-stretchers and knee-kickers
C-10.01.04	re-tuft carpet using tools such as tufting kits or specialty sewing tools
C-10.01.05	repair and refit damaged or unsatisfactory seams using tools such as napping shears and irons
C-10.01.06	reapply delaminated secondary backing of carpets using adhesives specified by manufacturer
C-10.01.07	repair or replace damaged cushion sections using tools such as hammer staplers, tape, adhesives and knives
C-10.01.08	repair or replace damaged accessories

Sub-task

C-10.02 Repairs carpet installed by direct glue-down method.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-10.02.01	cut out damaged area using tools such as cookie cutters, cushion back cutters and knives
C-10.02.02	replace cut out area to match existing carpet, taking into consideration pile direction and pattern
C-10.02.03	reapply and inject adhesive and seam sealer to carpet
C-10.02.04	re-stretch and refit carpet using tools such as power stretchers and knee kickers to realign patterns
C-10.02.05	re-tuft carpet using tools such as tufting kits or specialty sewing tools
C-10.02.06	repair and refit damaged or unsatisfactory seams using tools such as cutting knives, adhesives and napping shears
C-10.02.07	reapply delaminated secondary backing of carpets using adhesives specified by manufacturer
C-10.02.08	replace damaged carpet tiles
C-10.02.09	repair or replace damaged accessories

Sub-task

C-10.03 Repairs carpet installed by double-bond method.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

C-10.03.01	cut out damaged area, including cushion, using tools such as cookie cutters, cushion back cutters and knives
C-10.03.02	replace cut out area, including cushion, to match existing carpet, taking into consideration pile direction and pattern
C-10.03.03	reapply and inject adhesive to cushion and carpet, and seam sealer to carpet
C-10.03.04	re-tuft carpet using tools such as tufting kits or specialty sewing tools
C-10.03.05	repair and refit damaged or unsatisfactory seams using tools such as cutting knives, adhesives and napping shears

C-10.03.06	reapply delaminated secondary backing of carpets using adhesives specified by manufacturer
C-10.03.07	repair or replace damaged accessories

Sub-task

C-10.04 Repairs artificial turf. (NOT COMMON CORE)

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	no	NV	yes	yes	yes	no	ND	no	no	NV	NV	NV

Key Competencies

C-10.04.01	vacuum out filler material around damaged area
C-10.04.02	cut out damaged area using tools such as utility knives, cutters and shears
C-10.04.03	replace section with new piece and secure in place with adhesive
C-10.04.04	refill repaired area with filler material

BLOCK D RESILIENT FLOORING

Trends	More eco-friendly products are being demanded. These include recyclable and natural flooring as well as solvent-free adhesives. There are new tools used for specialized procedures such as coving and heat welding. Vinyl products such as planks and tiles are increasing in popularity.
Related Components (including, but not limited to)	Adhesives, resilient flooring material (such as vinyl, rubber, cork, linoleum, conductive flooring), coving, levelling compounds, underlayments, weld rods, fasteners, seam sealers, solvents, mineral spirits, cleaners.
Tools and Equipment	Basic hand tools, power tools and equipment, specialized resilient flooring tools and equipment, PPE and safety equipment.

Task 11 Installs resilient flooring.

Context Installation of resilient flooring is the art of physically executing the design plans to achieve a durable and aesthetic result. Proper installation techniques are important to validate warranty and to improve longevity of the flooring system.

Required Knowledge

K 1	basic geometry, Pythagorean theorem (3-4-5) and surface area
K 2	use of material with regard to appearance and design
K 3	adhesives such as asphalt emulsion, clear set, conductive, polyurethane and two-part epoxy and their applications
K 4	manufacturers' recommendations such as adhesive spread rate, method of adhesive application, and open, working and curing times
K 5	resilient tiles such as pure vinyl, vinyl plank, luxury vinyl tile (LVT), linoleum, VCT, rubber, cork and static dissipative tile (SDT)
K 6	resilient tile installation patterns such as ashlar, basket weave and herringbone
K 7	material characteristics such as grain, directional arrows and pole buckles
K 8	acclimation requirements

K 9	sheet good material such as PVC, rubber, linoleum and felt back, and their applications
K 10	strategic placement of material cuts and efficient use of material
K 11	scribing techniques such as pattern scribing, 3-wall scribing, direct scribing, and underscribing
K 12	manufacturers' recommended location to cut seam on product
K 13	seam preparation such as edge trimming, pattern matching and overlapping
K 14	seaming methods such as scribing, double cutting and pre-cutting
K 15	conductive adhesive and tile properties
K 16	grounding strips
K 17	manufacturers' recommendations for seam sealer such as drying time and two-part sealer working time
K 18	chemicals used for chemical fusion
K 19	flooring materials that can be heat welded
K 20	weld rods
K 21	heat welding procedures, temperatures and speed, and welding tips
K 22	grooving techniques such as hand, machine and heat grooving
K 23	groove dimensions
K 24	epoxy adhesive volatility

Sub-task

D-11.01 Establishes layout and grid lines.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-11.01.01	determine straight surface and take measurements to verify square layout
D-11.01.02	square material to room according to plans using methods such as 3-4-5 and using laser levels
D-11.01.03	mark layout and grid lines using chalk line
D-11.01.04	adjust layout lines to minimize use of small pieces along prominent walls and transitions

Sub-task

D-11.02 Installs resilient tiles.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-11.02.01	apply adhesive according to manufacturers' recommendations
D-11.02.02	allow adhesive open time according to manufacturers' specifications
D-11.02.03	batch tiles to achieve even distribution of natural variations in tiles
D-11.02.04	lay tiles from centre of room using pyramid method to avoid gaps and stair-stepping
D-11.02.05	cut tiles to fit using methods such as pattern scribing and direct scribing around obstructions such as drains and door frames
D-11.02.06	work away from adhesive or use kneeling board to prevent tile movement when using wet-set method
D-11.02.07	roll material using recommended roller weight and sequence to improve glue transfer and bond

Sub-task

D-11.03 Installs resilient sheet goods.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-11.03.01	make relief cuts according to dimensions and fixtures in installation area to prepare for adhesive
D-11.03.02	lap and tube material to accommodate working time of adhesives
D-11.03.03	apply adhesive and seam sealers according to manufacturers' recommendations
D-11.03.04	roll material using recommended roller weight and sequence to eliminate bubbles, and improve glue transfer and bond
D-11.03.05	cut material to fit vertical surfaces and obstructions
D-11.03.06	roll perimeter and seams with hand or seam roller to improve glue transfer and bond at the edges

Sub-task

D-11.04 Installs conductive flooring components.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-11.04.01	locate placement of grounding strips and position according to manufacturers' specifications
D-11.04.02	apply adhesive according to manufacturers' recommendations
D-11.04.03	roll material using recommended roller weight and sequence to eliminate bubbles, and improve glue transfer and bond
D-11.04.04	roll perimeter with hand or seam roller to improve glue transfer and bond at the edges

Sub-task

D-11.05 Cuts seams to fit.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-11.05.01	trim edges of sheets according to manufacturers' specifications and recommended overlap
D-11.05.02	recess scribe seams to fit depending on material and seaming method
D-11.05.03	double cut seams according to manufacturers' directions and industry practices
D-11.05.04	straight edge cut and butt edges together according to industry practices
D-11.05.05	use previously installed piece as a guide to top or freehand cut with hook blade where scribers cannot be used

Sub-task

D-11.06 Seals seams chemically.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-11.06.01	clean and prepare seam to prevent the contamination of seam sealer
D-11.06.02	mix two-part seam sealer according to manufacturers' specifications
D-11.06.03	apply seam sealer according to manufacturers' specifications
D-11.06.04	protect seams during drying time to prevent the contamination of seam sealer

Sub-task

D-11.07 Heat welds seams.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-11.07.01	clean and prepare seam to prevent contamination and a weak bond
D-11.07.02	groove seams to depth and width required by product specifications
D-11.07.03	set heat welder to temperature recommended in product specifications
D-11.07.04	apply weld rod and allow to cool according to manufacturers' specifications
D-11.07.05	trim weld rod using tools such as spatula knives, trim plates and hobby knives
D-11.07.06	perform final skiving to achieve a smooth and flat seam

Sub-task

D-11.08 Completes resilient flooring installation.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-11.08.01 apply silicone around features such as bathtubs, and inside and outside doors

D-11.08.02 perform final inspection and cleanup procedures such as wiping excess silicone and adhesive

Task 12 Performs custom resilient flooring procedures.

Context This task covers specialized installation procedures in the floorcovering trade such as coving, resilient flooring on stairs and wall coverings. These installations include residential, commercial and institutional applications.

Required Knowledge

K 1 specified pattern design

K 2 coving operations such as border coving, flash coving, butterfly corners, boot plug corners and toe kicks

K 3 uses and types of adhesives such as contact tape, contact cement, nosing epoxy and base adhesives

K 4 stair substrates such as wood, concrete and steel pan

K 5 stair construction such as boxed, open-ended, double-ended, pie and bullnose

K 6 resilient floor application methods on stairs such as one-piece, two-piece and coved

K 7 sequence of installation for resilient flooring products on stairs

K 8 techniques to install resilient wall covering materials to walls and other designated areas

K 9 specialty wall covering products such as sheet vinyl and panels

K 10 fasteners such as glue, nails and screws

K 11 types of heavy industrial flooring such as slip-proof and rubber

Sub-task

D-12.01 Performs coving procedures.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-12.01.01	cut, fit and fasten fillet/cove strips to support flooring material where floor meets wall and capping to receive material
D-12.01.02	install prefabricated coving using tools such as reverse scribers and mitre saws
D-12.01.03	install butterfly corners and boots plug corners according to industry practices
D-12.01.04	heat material before bending to prevent breakage and binding
D-12.01.05	push material into cove strips around perimeter of room to ensure adhesion to cove strips
D-12.01.06	cut flooring material and fit into capping
D-12.01.07	roll wall using seam roller to improve glue transfer and bond
D-12.01.08	cut and fit inside and outside corners using methods such as top cutting (freehand) and scribing
D-12.01.09	pattern scribe flooring material to avoid damaging material during installation

Sub-task

D-12.02 Installs tread, riser and stringer materials.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-12.02.01	measure and snap chalk line to determine height of stringer material
D-12.02.02	scribe and fit stringers top to bottom
D-12.02.03	adhere stringer materials to wall surface and roll to improve glue transfer and bond
D-12.02.04	cut, fit and scribe treads and risers to ensure neat finish
D-12.02.05	apply adhesive according to manufacturers' recommendations and industry practices

D-12.02.06	roll tread and riser materials using tools such as laminate and seam roller
D-12.02.07	install tactile warning strips to top of stairs and landings according to specifications and jurisdictional codes

---

Sub-task

D-12.03 Installs resilient flooring on stairs.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-12.03.01	cut, fit and fasten fillet/cove strips to receive and support flooring material where tread meets riser according to installation method
D-12.03.02	fit flooring to riser, tread and stringer according to manufacturers' specifications
D-12.03.03	cut and fit nosings as required by installation method
D-12.03.04	pattern match field, stairs and landings

Sub-task

D-12.04 Installs insets, borders and feature strips.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-12.04.01	scale measurements for insets, borders and feature strips from plans to achieve scaled image
D-12.04.02	create geometric shapes such as circles, ellipses and curved lines
D-12.04.03	place insets, borders and feature strips according to design layout
D-12.04.04	incorporate pattern into field to achieve uniform look

Sub-task

D-12.05 Installs specialty wall covering products.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

D-12.05.01	cut specialty wall covering products using cutting equipment such as jigsaws, hole saws and carbide blade knives
D-12.05.02	bend and form material to inside and outside corners using a heat bender
D-12.05.03	apply and trowel adhesive according to manufacturers' recommendations to improve adhesion
D-12.05.04	roll wall surface to improve glue transfer and bond
D-12.05.05	seal seams using heat weld or H-strips

Task 13 Services resilient flooring installations.

Context Servicing resilient flooring installations is done to repair damage and wear. It includes replacement of components and material.

Required Knowledge

K 1	resilient flooring construction types
K 2	causes of damage to resilient flooring such as moisture, contaminants and marks
K 3	resilient flooring repair techniques
K 4	resilient flooring replacement techniques
K 5	resilient flooring seaming techniques such as heat welding and chemical welding
K 6	seam repair limitations

Sub-task

D-13.01 Performs resilient flooring repairs.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-13.01.01	determine most effective method of repair such as patching, re-gluing and sealing seams, injecting adhesive and heat welding
D-13.01.02	ensure substrate is ready to accept flooring repair
D-13.01.03	cut out damaged areas according to manufacturers' recommendations and industry practices
D-13.01.04	replace damaged areas with best matching product
D-13.01.05	repair miscut, open, peaked and loose seams using manufacturer approved adhesive
D-13.01.06	protect seams during drying time of seam sealers

Sub-task

D-13.02 Repairs accessories.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	yes	yes	yes	ND	yes	yes	NV	NV	NV

Key Competencies

D-13.02.01	remove old adhesives and fasteners from repair area to prevent damage and to salvage accessories for reinstallation
D-13.02.02	replace fasteners to complete repair

BLOCK E WOOD AND LAMINATE FLOORING

Trends	The use of pre-finished hardwood and engineered products continues to grow. More customer-friendly laminate flooring products are available to consumers for do-it-yourself projects. For wood flooring, there is a greater consumer demand for sustainable and green products. There is also a greater demand for exotic woods and reclaimed wood products.
Related Components (including, but not limited to)	Underlayments, wood and laminate flooring materials (cork, domestic and exotic woods, bamboo, reclaimed woods), adhesives, finishes, fasteners, solvents, cleaners, wood glue, laminate glue
Tools and Equipment	Basic hand tools, power tools and equipment, specialized wood and laminate flooring and underlayment tools and equipment, PPE and safety equipment

Task 14 Installs pre-finished solid and engineered hardwood, and laminate flooring.

Context This task encompasses the various installation methods for installing pre-finished solid and engineered hardwood and laminate flooring products.

Required Knowledge

K 1	jambs such as steel, wood and medium density fibreboard (MDF)
K 2	finished height of material
K 3	building code requirements and restrictions on sound transmission
K 4	types of trims such as T-mouldings, reducers, stair nosings and quarter rounds
K 5	pads such as sound and vapour barriers
K 6	flooring material being installed such as laminate, engineered, parquet and solid wood
K 7	wood species and their characteristics
K 8	site barrier requirements such as felt, asphalt and wax paper

K 9	fastening techniques and systems such as glue down, nailing and mechanical joint
K 10	types of fastening tools such as cleat nailer and stapler
K 11	basic geometry, Pythagorean theorem (3-4-5), surface area and triangulation
K 12	racking material for appearance and designs such as herringbone, straight lay and offsetting end joints
K 13	fitting techniques such as scribing and reverse board
K 14	cuts such as mitre and relief cuts
K 15	cutting blade properties such as tooth count, kerf and tooth material
K 16	recommended uses of adhesives such as epoxy, wood glue and laminate glue
K 17	substrate construction and preparation
K 18	acclimation requirements
K 19	measuring moisture and humidity
K 20	expansion and contraction tolerances
K 21	expansion and contraction characteristics of wood types
K 22	wood fillers and finishes
K 23	nailing and spacing specifications
K 24	health issues when cutting laminate and pre-finished products
K 25	types of PPE such as hearing protection and safety glasses
K 26	moisture test on substrates

Sub-task

E-14.01 Undercuts jambs and trims.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-14.01.01	check for wiring such as security alarms, doorbells and TV cables
E-14.01.02	select blade according to material such as metal, wood and concrete
E-14.01.03	set blade to height of material to be installed and to depth of cut
E-14.01.04	protect surrounding finished surfaces during cutting process using tape and score line to prevent chipping
E-14.01.05	cuts jambs, toe kicks and trims to height of material to allow for expansion and contraction of material

Sub-task

E-14.02 Installs barriers and cushion.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-14.02.01	select barriers and cushion according to codes and manufacturers' specifications
E-14.02.02	tape seams with manufacturers' recommended overlap
E-14.02.03	position barrier and cushion running up the wall to above the height of the finished baseboard

Sub-task

E-14.03 Establishes layout.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-14.03.01	establish the start line for flooring, such as by identifying prominent wall (longest, straightest)
E-14.03.02	establish the square of the room by using the 3-4-5 method
E-14.03.03	measure to establish centre line of room using a chalk line and measuring tape
E-14.03.04	determine direction of floor joists to establish direction of boards as required
E-14.03.05	rack material to avoid use of small pieces by staggering end joints to maintain consistency of appearance
E-14.03.06	lay out patterns such as herringbone, medallions and borders

Sub-task

E-14.04 Fits material.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-14.04.01	select tool such as mitres, table saws, jigsaws, laminate shears and routers
E-14.04.02	cut material around walls and obstacles to allow for expansion and contraction using methods such as scribing, direct scribing, and reversing board and cutting
E-14.04.03	select flooring from multiple boxes to prevent shading and uneven colouring

Sub-task

E-14.05 Nails down pre-finished solid and engineered hardwood flooring.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-14.05.01	adjust fastening tool for placement and depth of fastener depending on thickness of material
E-14.05.02	fasten material using fasteners such as cleats, staples and nails according to material and sub-floor
E-14.05.03	space fasteners according to manufacturers' recommendations
E-14.05.04	face nail starting row and finishing row according to industry standards
E-14.05.05	install spline or slip tongue using a router for reversing direction of lay or reinforcing weak joints
E-14.05.06	apply glue to one groove to secure spline

Sub-task

E-14.06 Glues down solid and engineered hardwood flooring.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-14.06.01	apply adhesive to substrate according to manufacturers' recommendations for open time and spread rate
E-14.06.02	lay starter rows into adhesive from a start line
E-14.06.03	tighten rows using tools and equipment such as clamps and tape
E-14.06.04	allow rows to dry to ensure secure starting rows
E-14.06.05	stagger end joints according to manufacturers' specifications to strengthen starting row
E-14.06.06	install spline or slip tongue using a router for reversing direction of lay or reinforcing weak joints
E-14.06.07	apply glue to one groove to secure spline
E-14.06.08	clean excess adhesive off surface while adhesive is still wet
E-14.06.09	fit tongue into groove facing out of leader board to avoid forcing adhesive into gap
E-14.06.10	roll flooring according to manufacturers' specifications

Sub-task

E-14.07 Assembles floating floors.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-14.07.01	determine joint type such as mechanical and glued
E-14.07.02	apply laminate adhesive to joints being installed in wet areas and heavy traffic areas according to manufacturers' specifications
E-14.07.03	stagger end joints according to manufacturers' specifications
E-14.07.04	position flooring around perimeter with spacers such as wedges according to manufacturers' recommendations to avoid contact with vertical stationary objects

E-14.07.05	lock joints together using tools such as tapping blocks and pull bars
E-14.07.06	maintain integrity of floating floor by not fastening items such as baseboards, closet door hardware and transitions to the floor
E-14.07.07	install expansion joints at break points according to manufacturers' recommendations
E-14.07.08	use underpad as per manufacturers' recommendations

Task 15 Installs custom wood and laminate flooring.

Context This task encompasses installing borders and insets, and covering stairs using custom wood and laminate flooring products.

Required Knowledge

K 1	layout of borders and patterns such as medallions and herringbone
K 2	border design terminology such as "inset", "framing", "skirting" and "apron"
K 3	measuring techniques
K 4	tools such as routers and scroll saws
K 5	design techniques
K 6	interpretation of blueprints
K 7	mitre joints, lap joints and custom corners
K 8	spline installation
K 9	stair components such as stringers, risers, railings, spindles, nosings and treads
K 10	stair designs such as open, boxed and bullnose
K 11	recommended uses of adhesives such as epoxy, wood glue and laminate glue
K 12	types of trims such as T-mouldings, reducers, stair nosings and quarter rounds
K 13	sound staircase construction and removal of existing stair nose
K 14	starting points
K 15	wood fillers and finishes
K 16	cutting blade properties such as tooth count, kerf and tooth material

Sub-task

E-15.01 Installs borders, insets and custom fabrications in wood.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-15.01.01	determine design layout and patterns according to desired effect
E-15.01.02	cut medallions, insets and borders using tools such as routers and jigs
E-15.01.03	apply adhesive such as epoxies and glues according to product requirements
E-15.01.04	install spline or slip tongue for borders and mitre joints
E-15.01.05	cut and install a mitre joint and lap joint to ensure tight fit
E-15.01.06	fabricate custom trims and transitions from field materials such as door reducers and quarter rounds
E-15.01.07	screw and plug plank flooring for anchoring and decorative purposes

Sub-task

E-15.02 Installs wood and laminate flooring on stairs.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-15.02.01	cut existing nosing to achieve a square stair
E-15.02.02	determine tread such as one-piece and stair nosing and board depending on customer requirements
E-15.02.03	cut material for tight fit on tread, riser and stringer
E-15.02.04	fasten flooring using screws, glues and nails depending on substrate
E-15.02.05	cut and finish stair return using a mitre or router

Task 16 — Services pre-finished solid and engineered hardwood, and laminate flooring.

Context This task includes repairing and replacing sections of pre-finished solid and engineered hardwood, and laminate flooring. In some jurisdictions, floorcovering installers may perform refinishing of wood floors.

Required Knowledge

K 1	repair techniques such as filling and sanding
K 2	flooring and repair materials such as wax crayons, putties and stains
K 3	repair limitations
K 4	existing fastening systems
K 5	existing flooring stains and finishes
K 6	replacement techniques
K 7	repair kits such as thermal plastic and laminate, and their use

---

Sub-task

E-16.01 Repairs boards.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-16.01.01	use thermal plastic repair kits for pre-finished wood according to manufacturers' instructions
E-16.01.02	use laminate repair kit according to manufacturers' instructions
E-16.01.03	fill holes with putties and crayons
E-16.01.04	tighten loose boards using fasteners such as nails and screws
E-16.01.05	glue loose boards on concrete using an injection system

Sub-task

E-16.02 Replaces boards and accessories.

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	yes	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-16.02.01	protect existing finished surfaces using materials such as masking tape and cardboard
E-16.02.02	determine thickness of wood board to be replaced and set saw according to depth
E-16.02.03	remove board using tools such as a plunge routers, circular saws, chisels and specialty tools for laminate
E-16.02.04	remove existing laminate floor up to damaged area, replace with new and reinstall
E-16.02.05	remove fasteners to prepare for new board
E-16.02.06	apply adhesives according to material
E-16.02.07	fit and install new board and apply weight to keep flat

Sub-task

E-16.03 Refinishes hardwood flooring. (NOT COMMON CORE)

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
NV	yes	NV	no	no	yes	yes	ND	yes	no	NV	NV	NV

Key Competencies

E-16.03.01	sand and screen surface depending on existing finish using tools such as edgers and drum sanders
E-16.03.02	apply fillers according to existing flooring
E-16.03.03	remove dust by vacuuming and tacking floor
E-16.03.04	apply stain according to manufacturers' specifications
E-16.03.05	apply finish according to manufacturers' specifications

APPENDICES

APPENDIX A TOOLS AND EQUIPMENT

Hand Tools

adjustable wrench
awl
blades (utility, slotted, hooked, saw)
broom
caulking gun
chalk line
chisels
claw hammer
dryline
dust brush
files
hacksaw
hand scraper
hammer stapler
hand stapler
level
measuring tape
mitre box
moulding cutter
moulding lifter
nail set
patching trowel
pencils/markers
pliers
plumb bob
putty knife
rubber mallet
scale rulers
screwdrivers
sharpening stone
square
straightedge
tee square
tin snips
tool box
tool pouch and belt
utility knife

Power Tools and Equipment

air compressors
air sled
angle grinder
binding machine and stapler
circular saw
cove base adhesive gun
dollies and hand trucks
drum sander
edger
electric tacker
extension cords
floor fan
floor polisher
generator
hammer drill
heat gun
hot melt glue gun
jamb saw
jigsaw
laser line
lights
mitre saw
moisture meter
pneumatic nailer
pneumatic tacker
portable electric circular saw
portable table saw
powder actuated tools
power drill and mixing paddle
router and specialized router bits
sanders
seaming irons
soldering guns
spray machines
stripper machines
vacuum cleaners
welding guns

Specialized Carpet Tools and Equipment

adhesive trowels
anchorite tool
binding machine
brad set
carpet base cutter
carpet cart
carpet comb
carpet clamp
carpet crane
carpet restretcher (crab)
carpet seam roller
carpet shears (napping shears)
carpet spreader
carpet tractor
carpet tucker
cookie cutter
cushion-back cutter
door pin tool
double cutter
double headed crab
driving bar
hot melt edge sealer tip
induction heating irons
knee kicker
latex squeeze bottle
loop pile cutter
moisture test kit
parallel cutter
porcupine roller
power stretcher
row separator
seam seal kit
seam squeezer
sewing needles
sewing palm and thimble
sewing thread
stair stretcher
stair tool
stand-up roller (35 lb. – 75 lb.)
stand-up scraper
staple remover
tack hammer
tack strip cutter
trowel notcher
tufting kit
various knives
wall trimmer – conventional

Specialized Resilient Flooring Tools and Equipment

bar scriber
bricks (grey, paver bricks)
corner scriber
cove base gouging tool (groover)
divider
edge trimmer
extension hand roller (laminate)
hand roller (seam/coving roller)
linoleum dolly (sheet vinyl cradle)
mixing paddle
moisture test kit
paint brushes
heat seam welding system (hand groover, heat welding gun, electric groover, nozzles for welder, trim plate, skiving knives, spatula knives, hobby knives, trimmers)
paint roller and tray
power drill
propane torch
sand bags
specialized knives
spreader or notched steel trowel
stand up roller (100 lb. – 125 lb.)
straightedge
tee square (6 ft. or 2 m)
tile cutter
two metre straightedge
under or recess scriber
universal scriber
wall trimmer

Specialized Wood and Laminate Flooring and Underlayment Tools and Equipment

angle clamps
fastening detectors
flooring jacks
glue scrapers
glue trowels
hardwood mallets
laminate clamps
laminate shears (guillotine)
laminate straps
manual hardwood nailers
moisture test kits
multi-tool
pneumatic hardwood nailers
pull bars
shears
spacers
tapping blocks
toe-kick saws
underlayment staplers

Specialized Turf Tools and Equipment

fork lift
motorized fill spreader
motorized landscape roller
power sweeper
rakes
shovels
turf sewing machine
turf clamps
turf shears (electric and pneumatic)

Personal Protective Equipment and Safety Equipment

approved respirator and filters
back support belt
CSA approved work boots
dust mask
fall arrest equipment
hard hat
hearing protection
high visibility vests
knee pads
safety glasses and side shields
work gloves

APPENDIX B GLOSSARY

acclimation allowing the flooring products to pre-adjust to the environmental conditions in which they are being installed

adhesive material used as a bonding agent

area rug carpet not fastened to the floor and usually not covering the entire floor

artificial turf manufactured like carpet but made of vinyl used to replace natural grass

ashlar term used to describe the layout of floor tiles or plywood panels in relation to every other row such as half-staggered or brick pattern design

asphalt emulsion fast setting water-based adhesive, containing solutions of asphalt and latex (rubber)

backing material that forms the back of the carpet, regardless of type of construction:

a) primary back - in tufted carpets, the material to which surface yarns are attached; made of jute, Kraft cord, cotton, woven or non-woven synthetics

b) secondary back - also called double backing; any material (jute, polypropylene, woven or non-woven synthetic scrim, foam or cushion) laminated to the primary back

base flat or shaped, extruded or moulded, vinyl, rubber or combination material attached to the bottom of vertical surfaces such as walls, counter bases, etc.

below-grade sub-floor sub-floor that is partially or completely below the surrounding ground level in direct contact either with the ground or with fill that is in direct contact with the ground

binding strip (usually cloth) sewn over the edge of a piece of carpet for protection from wear and unravelling

buckles humps in carpet due to improper stretching, lack of adhesive and delamination

capping material used when flash coving tile and/or sheet goods as an edge finish

carpet	general term for a fabric or soft floorcovering fastened to the entire floor from wall to wall
conductive floorcovering	electrical conductive resilient floorcovering materials specially formulated to prevent the build-up of static charges
construction	term applies to the method by which a floorcovering is manufactured
contaminant	substance that inhibits the bond between the substrate and the floorcovering material and/or discolours the floorcovering material
conventional method	stretch in installation of carpet over cushion and tackless strip
cork tile	cork granules of different sizes and densities thoroughly and uniformly bonded with resin binders; made in sheet and tile form
coving	also referred to as flash or self-coving; floorcovering materials installed over a cove backing-up the wall to a specific height
cross seams	the joining together of the ends of two pieces of floorcovering into a continuous length of floorcovering
cushion	separate material placed under a carpet to provide resiliency support and noise absorption (also carpet lining, padding and underlay)
cut pile	carpet pile that has cut ends as the face
density	amount of pile in a given area of carpet reflective of the closeness of the pile yarns and expressed as kilotex per cm^2 which reflects the percent of the surface covered with fibres
double cut	also called full-lapped.; a method making a seam in sheet floorcovering
dye lot	amount of floorcovering material that is produced from a single batch of dye; each batch of dye has a control number attached to it to assist in sequencing
edge trim	metal or resilient moulded or extruded shapes designed for installation at exposed edges of the carpet or resilient floorcovering to protect edges from damage
edging (reducers, butt strips)	finished protective edge material used as a stop for resilient floorcovering

feature strips	contrasting strips or shapes of flooring material used as borders or to delineate pattern for decorative or functional purpose (as in gymnasium or multi-purpose game situations)
field	area of floorcovering that is contained within the limits of the borders or walls
fillet strips/cove strips	structural backing for flash coving
flocked	method of manufacturing carpet using electrostatic charge and adhesive
gauge	specified thickness and density of a floorcovering product
grade	relationship of a sub-floor to exterior ground levels
hot melt seaming	carpet seaming method
induction heating iron	electric magnetic iron that seams carpet from the top using specialty tapes
inset (also insert)	custom or standard shape in contrasting colour or pattern, set into the field of resilient floorcovering for special purposes or effects
kerf	cut or incision made by a saw in a piece of wood
lap / tube material (to)	folding material back along the width (lap) or along the length (tube)
linoleum	thoroughly blended composition of linseed oil, natural and synthetic resins, granulated cork, wood flour, mineral and chemical pigments calendered to a backing of jute canvas or polypropylene
loop pile carpet	manufactured carpet with continuous filament loops creating a pebbly, homespun appearance made from wools and synthetics
mitre	method where two pieces of floorcovering are joined together at an angle (usually 45 degrees)
needle-punched carpet	method of constructing a carpet without backing
nosing	finished protective metal, vinyl or rubber, formed edge material used for stair tread covering
on-grade sub-floor	sub-floor that is in direct contact with the ground or with less than 450 mm (18 in.) of air space under it, or a suspended sub-floor in contact at some point with fill

pattern matching	procedure for insuring correct alignment of patterned materials
pattern repeat	distance from a point in a pattern figure to the same point where it occurs again
pile	upright ends of yarn, whether cut or looped, that form the wearing surface of carpets or rugs
pile direction (pile lay)	sweep or direction of the carpet (see shading)
pole buckle (linoleum)	deformation created by hanging linoleum during its manufacture
proprietary backings	type of backing that is unique to a particular manufacturer
pyramid method	process of laying tile to maintain a square installation
reducers (see edging)	materials used to transition floorcovering to a different level
runner	continuous material used as a surface covering in traffic lanes and stairs leaving a margin on each side
seam sealing	procedure for sealing seams using a special applicator and sealants
seam welding	process of fusing or filling seams in certain types of flooring
secondary backing	woven or non-woven fabric attached to the back of carpets
serging	also known as over sewing, this is a method of finishing the cut edges of some carpet; it is customary to serge the side and bind the end
shading	a) an apparent change of colour in carpet pile caused as light is reflected in different ways when pile fibres are bent; not a defect, but a characteristic b) variance in colours between two or more panels of resilient flooring cut from the roll
slip tongue	in hardwood flooring, is a small piece of hardwood that is inserted into the groove portion when reversing direction of the tongue and groove system
static dissipative tile (SDT)	flooring installation system that allows for controlled dissipation of static electric charges; used for computer and data rooms

stringer material	continuous strip material used on the sides of stairs
sub-floor	for structural purposes and is the substrate or supporting layer for the underlayment
substrate	smooth surface prepared to accept the floorcovering such as concrete, underlayment and existing floorcovering
tackless strip	used under carpet along walls with pins angled towards the wall; carpet is stretched onto the pins to provide a smooth tight finish
trace cutting	procedure for cutting seams where a trimmed side overlaps an untrimmed side and the trace of the trimmed side is followed
tread material	floorcovering materials used for covering stair treads
trim	material used to finish and protect edge and to provide transition between different floorcovering materials
tufted carpet	type of carpet construction
tufts	cut or uncut loops forming the face of tufted or woven carpet
underlayment	a) approved composition board or plywood of at least 6 mm (1/4 in.) thick, properly secured over wood-based sub-floors to create a substrate b) approved trowel-applied material used to level, smooth, skim-coat or fill sub-floor irregularities to create a substrate
vinyl composite tile (VCT)	thoroughly blended composition of vinyl resins, plasticizer, inert fillers and pigments formed under pressure and heat into sheet form, then cut into tile size
wear layer	the top portion of a floorcovering

APPENDIX C ACRONYMS

CSA	Canadian Standards Association
ICI	industrial/commercial/institutional
LEED	Leadership in Energy and Environmental Design
LVT	luxury vinyl tile
MDF	medium density fibreboard
MSDS	Material Safety Data Sheets
OH&S	Occupational Health and Safety
PPE	Personal Protective Equipment
PVC	polyvinyl chloride
SDT	static dissipative tile
TSP	trisodium phosphate
VCT	vinyl composite tile
VOC	volatile organic compounds
WHMIS	Workplace Hazardous Materials Information System

APPENDIX D BLOCK AND TASK WEIGHTING

BLOCK A COMMON OCCUPATIONAL SKILLS

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	National Average
%	NV	10	NV	10	15	11	16	ND	10	5	NV	NV	NV	11%

Task 1 Performs safety related functions.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	30	NV	20	15	30	25	ND	20	10	NV	NV	NV	21%

Task 2 Assesses floor and jobsite conditions.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	30	NV	25	35	35	30	ND	40	40	NV	NV	NV	34%

Task 3 Organizes work.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	30	NV	25	30	20	30	ND	30	10	NV	NV	NV	25%

Task 4 Installs transitions, trims and wall bases.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	10	NV	30	20	15	15	ND	10	40	NV	NV	NV	20%

BLOCK B FLOOR PREPARATION

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	National Average
%	NV	25	NV	20	20	25	21	ND	25	10	NV	NV	NV	21%

Task 5 Removes existing floorcovering and accessories.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	50	NV	40	40	40	40	ND	30	10	NV	NV	NV	36%

Task 6 Prepares substrate.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	50	NV	60	60	60	60	ND	70	90	NV	NV	NV	64%

BLOCK C CARPET

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	National Average
%	NV	20	NV	25	35	24	21	ND	25	40	NV	NV	NV	27%

Task 7 Installs carpet.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	40	NV	60	45	50	40	ND	50	70	NV	NV	NV	54%

Task 8 Performs custom carpet procedures.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	30	NV	20	25	30	40	ND	30	20	NV	NV	NV	29%

Task 9 Installs artificial turf. (NOT COMMON CORE)

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	15	NV	0	20	5	0	ND	0	0	NV	NV	NV	NCC

Task 10 Services carpet installations.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	15	NV	20	10	15	20	ND	20	10	NV	NV	NV	17%

BLOCK D RESILIENT FLOORING

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	National Average
%	NV	25	NV	25	30	27	21	ND	25	45	NV	NV	NV	28%

Task 11 Installs resilient flooring.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	60	NV	60	55	55	45	ND	45	70	NV	NV	NV	56%

Task 12 Performs custom resilient flooring procedures.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	30	NV	25	25	30	40	ND	35	25	NV	NV	NV	30%

Task 13 Services resilient flooring installations.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	10	NV	15	20	15	15	ND	20	5	NV	NV	NV	14%

BLOCK E WOOD AND LAMINATE FLOORING

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	National Average
%	NV	20	NV	20	0	13	21	ND	15	0	NV	NV	NV	13%

Task 14 Installs pre-finished solid and engineered hardwood, and laminate flooring.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	60	NV	20	0	55	40	ND	60	0	NV	NV	NV	47%

Task 15 Installs custom wood and laminate flooring.

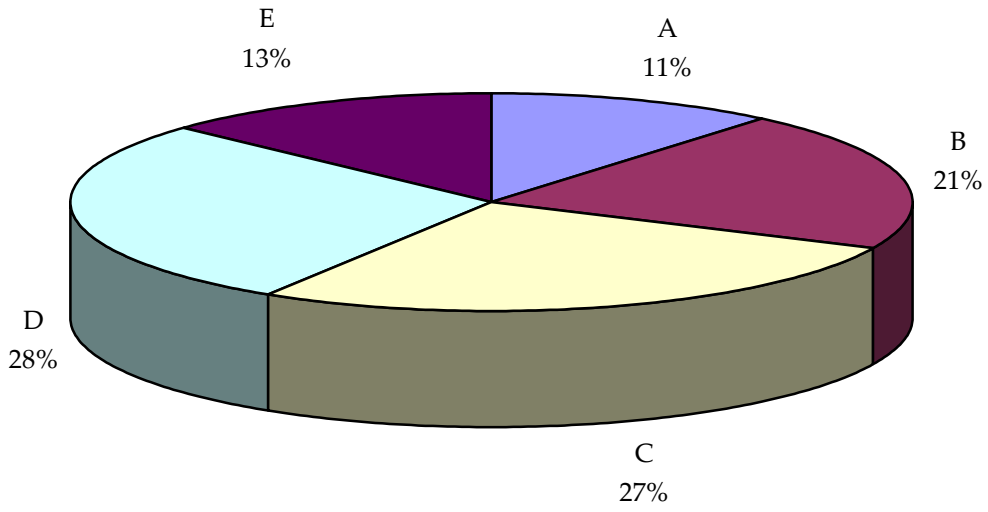
	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	30	NV	50	0	30	40	ND	25	0	NV	NV	NV	35%

Task 16 Services pre-finished solid and engineered hardwood, and laminate flooring.

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU	
%	NV	10	NV	30	0	15	20	ND	15	0	NV	NV	NV	18%

APPENDIX E

PIE CHART*



TITLES OF BLOCKS

BLOCK A	Common Occupational Skills	BLOCK D	Resilient Flooring
BLOCK B	Floor Preparation	BLOCK E	Wood and Laminate Flooring
BLOCK C	Carpet		

*Average percentage of the total number of questions on an interprovincial examination, assigned to assess each block of the analysis, as derived from the collective input from workers within the occupation from all areas of Canada. The Interprovincial examination for this trade has 150 questions.

APPENDIX F

TASK PROFILE CHART — Floorcovering Installer

BLOCKS	TASKS	SUB-TASKS				
A - COMMON OCCUPATIONAL SKILLS	1. Performs safety related functions.	1.01 Uses personal protective equipment (PPE) and safety equipment.	1.02 Maintains safe work environment.	1.03 Maintains tools and equipment.		
	2. Assesses floor and jobsite conditions.	2.01 Performs quality control.	2.02 Assesses floor and sub-floor conditions and deficiencies.	2.03 Conducts field tests.		
	3. Organizes work.	3.01 Plans sequence of installation.	3.02 Handles material.	3.03 Determines layouts and materials needed for job.		
	4. Installs transitions, trims and wall bases.	4.01 Installs transitions and trims.	4.02 Installs resilient wall base.	4.03 Installs carpet wall base.	4.04 Installs wood wall base.	
B - FLOOR PREPARATION	5. Removes existing floorcovering and accessories.	5.01 Removes transitions, trims and wall bases.	5.02 Removes carpet.	5.03 Removes resilient flooring.	5.04 Removes wood, laminate flooring and underlayment.	
	6. Prepares substrate.	6.01 Removes contaminants.	6.02 Prepares concrete floors and underlayment.	6.03 Prepares wood floors and underlayment.	6.04 Prepares specialty floors.	6.05 Installs trowelled underlayment.
		6.06 Installs rigid underlayment panels.				

BLOCKS	TASKS	SUB-TASKS				
C - CARPET	7. Installs carpet.	7.01 Cuts carpet for installation.	7.02 Installs carpet by conventional method.	7.03 Install carpets by direct glue-down method.	7.04 Installs carpet by double-bond method.	7.05 Installs modular carpet tiles.
		7.06 Completes carpet installation.				
	8. Performs custom carpet procedures.	8.01 Installs borders and insets.	8.02 Binds carpet.	8.03 Upholsters carpet.	8.04 Assembles area rugs and runners.	8.05 Installs carpet and runners on stairs.
	9. Installs artificial turf. (NOT COMMON CORE)	9.01 Establishes layout and grid lines for artificial turf. (NOT COMMON CORE)	9.02 Assembles artificial turf sections. (NOT COMMON CORE)	9.03 Installs artificial turf insets. (NOT COMMON CORE)	9.04 Completes artificial turf installation. (NOT COMMON CORE)	
	10. Services carpet installations.	10.01 Repairs carpet installed by conventional method.	10.02 Repairs carpet installed by direct glue-down method.	10.03 Repairs carpet installed by double-bond method.	10.04 Repairs artificial turf. (NOT COMMON CORE)	
D - RESILIENT FLOORING	11. Installs resilient flooring.	11.01 Establishes layout grid lines.	11.02 Installs resilient tiles.	11.03 Installs resilient sheet goods.	11.04 Installs conductive flooring components.	11.05 Cuts seams to fit.
		11.06 Seals seams chemically.	11.07 Heat welds seams.	11.08 Completes resilient flooring installation.		
	12. Performs custom resilient flooring procedures.	12.01 Performs coving operations.	12.02 Installs tread, riser and stringer materials.	12.03 Installs resilient flooring on stairs.	12.04 Installs insets, borders and feature strips.	12.05 Installs specialty wall covering products.

BLOCKS	TASKS	SUB-TASKS				
	13. Services resilient flooring installations.	13.01 Performs resilient flooring repairs.	13.02 Repairs accessories.			
E - WOOD AND LAMINATE FLOORING	14. Installs pre-finished solid and engineered hardwood, and laminate flooring.	14.01 Undercuts jambs and trims.	14.02 Installs barriers and cushion.	14.03 Establishes layout.	14.04 Fits materials.	14.05 Nails down pre-finished solid and engineered hardwood flooring.
		14.06 Glues down solid and engineered hardwood flooring.	14.07 Assembles floating floors.			
	15. Installs custom wood and laminate flooring.	15.01 Installs borders, insets and custom fabrications in wood.	15.02 Installs wood and laminate flooring on stairs.			
	16. Services pre-finished solid and engineered hardwood, and laminate flooring.	16.01 Repairs boards.	16.02 Replaces boards and accessories.	16.03 Refinishes hardwood flooring. (NOT COMMON CORE)		