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Trade Profile

Tilesetter

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Structure of the Trade Profile

This profile has two sections that provide a snapshot of the trade's description, and all trade activities as they are organized in the Red Seal Occupational Standard:

Description of the Tilesetter Trade: an overview of the trade's duties, work environment, job requirements, similar occupations and career progression

Trends in the Tilesetter Trade: some of the trends identified by industry as being the most important for workers in this trade

Task Matrix: a chart which outlines graphically the major work activities, tasks and sub-tasks of this trade

Major Work Activity (MWA): the largest division within the standard that is comprised of a distinct set of trade activities

Task: distinct actions that describe the activities within a major work activity

Sub-task: distinct actions that describe the activities within a task

A complete version of the occupational standard, which provides additional detail for the trade activities, skills and knowledge can be found at www.red-seal.ca.

Description of the Tilesetter Trade

“Tilesetter” is this trade’s official Red Seal occupational title approved by the CCDA. This standard covers tasks performed by tilesetters.

Tilesetters cover, protect, repair and decorate exterior and interior walls, floors, ceilings, fireplaces, swimming pools, saunas, showers and other surfaces. Tiling materials include ceramic, mosaics, glass, quarry tiles, engineered stone, natural stone (slate, marble, granite), terrazzo and porcelain.

Tilesetters read and interpret architectural drawings and material specifications to determine tile layout, finish and installation requirements. They may also design patterns for the area to be tiled. They prepare surfaces for tiling which may involve applying a variety of products such as membranes, mortar beds and underlayments. They select, mix, apply and spread mortar, cement, mastic, epoxy or other adhesives to the surface to be tiled. They cut and fit tiles to a variety of surfaces and finish tiles using grout. Tilesetters may also lay and set mosaic tiles to create decorative wall, mural and floor designs. Some tilesetters cut, polish and install marble and granite which may involve setting stone mechanically. They may also mix, lay, grind and polish terrazzo surfaces. Tilesetters may install marble using plaster and wire methods.

Tilesetters use special hand and power tools like tile cutters and saws to cut tiles to the correct size. Hand tools such as trowels are used to apply setting materials to fasten tiles to a surface. Levels, squares, straight edges and grid lines are used to align and straighten tiles. Grinding and polishing machines are used for finishing certain surfaces. Heavy equipment such as cranes may be used to transport and install product. Industrial mixers and pumps may be used in various installation processes.

Tilesetters may be employed by companies working in the residential, commercial and institutional field. Tilesetters may work in the private sector, in a union or be self-employed. Tilesetters often work with designers, clients, architects, suppliers and manufacturers.

Tilesetters generally work indoors. Some work such as cladding and swimming pools may be performed outside, exposing workers to inclement weather. The work can be physically demanding, requiring bending, kneeling, reaching, heavy lifting and working at heights.

Some important attributes in this trade include a good knowledge of mathematics to calculate weights and angles, wall and ceiling measurements, and the amount of material required to complete the work. The ability to read blueprints, shop drawings and specifications is also important. Planning and visual skills are needed in the design stage. Tilesetters are required to have a good eye for colour and layout, since they may prearrange tiles to confirm a specific design. Aptitudes include manual and spatial dexterity, strength for heavy lifting, eye-hand co-ordination and good balance and vision. Good communication and interpersonal skills are also important.

This standard recognizes similarities with the work of bricklayers, stone masons, plasterers, drywall installers, floorcovering installers and carpenters. Experienced tilesetters may advance to foreperson, instructor or supervisory positions.

Trends in the Tilesetter Trade

Technology

Installation methods for in-floor heating and sound barriers are becoming easier due to advanced technology.

Technological advances enable tilesetters to estimate materials and supplies in a quick and concise manner through automated systems.

New cellular technology apps are being used by general contractors to manage projects, centralize documents, integrate with financial systems (time sheet and payroll) and give real-time view of how the projects are pacing in the field. This helps to ensure that the tradesperson is building from the correct versions of documents, drawings and safety requirements.

Tools and Equipment

Technology for finishing equipment and materials has improved. Equipment is safer, larger, lighter and faster, resulting in higher productivity for tilesetters. Equipment and materials are more environmentally friendly.

Products and Materials

Sound barriers are following in-floor heating in popularity and are now mandatory in some buildings. Product and material compositions are changing to increase efficiency.

A wider range of products such as large format tile are available. The availability of these products influences tile layout and may require the use of new tools and equipment to cut, handle and vibrate in place. The complexity of layouts is increasing due to unlimited colours and endless design possibilities of mosaic tile and digital designs.

Due to consumer preferences, size of tiles has increased. New lightweight engineered mortars have been introduced to eliminate sagging of these large format tiles on walls and lippage on floors. This new material is more environmentally friendly than previously used organic mastic.

Terrazzo is durable and economical. It makes an impact, particularly in the use of colour, decorative patterns and logo design. In a poured in place or precast form, it is used for floors, stairs, treads, countertops and wall treatments. It consists of chips of marble, quartz, granite, glass or other suitable materials, poured with cementitious/epoxy binders, or a combination of both.

Setting materials are being improved to meet more stringent environment standards such as volatile organic components (VOC) emission, antimicrobial control and Leadership in Energy and Environmental Design (LEED).

Environmental

LEED is now being taken into consideration when estimating and ordering materials.

Recycling of removed materials is compulsory in some jurisdictions and is being enforced in more and more regions.

Legislative and Regulatory

Responsibilities may vary depending if tilesetters are working for a general contractor or working independently. Building permits and building restrictions may vary depending on region.

Tileseter
Task Matrix and Weightings

A – Performs common occupational skills — 12%

Task A-1 **Performs safety-related functions** **31%**	**A-1.01 Maintains safe work environment**	**A-1.02 Uses personal protective equipment (PPE) and safety equipment**	
Task A-2 **Uses and maintains tools and equipment** **31%**	**A-2.01 Uses tools and equipment**	**A-2.02 Uses access equipment**	**A-2.03 Uses rigging, hoisting and lifting equipment**
Task A-3 **Organizes work** **38%**	**A-3.01 Estimates materials, supplies and labour**	**A-3.02 Organizes materials, supplies and work site**	**A-3.03 Evaluates damages and deficiencies**
	A-3.04 Uses communication techniques	**A-3.05 Uses mentoring techniques**	

B – Prepares substrates — 15%

Task B-4 **Removes existing finishes** **29%**	**B-4.01 Removes surface coverings**	**B-4.02 Cleans surfaces**	
Task B-5 Evaluates and prepares surface **47%**	**B-5.01 Assesses existing substrate**	**B-5.02 Installs membranes**	**B-5.03 Installs mortar beds**
	B-5.04 Installs underlayments		

Task B-6 Installs specialty products **24%**	**B-6.01 Installs sound barrier products**	**B-6.02 Installs in-floor heating**	**B-6.03 Installs engineered products**

C – Prepares layout — 21%

Task C-7 Lays out work area **76%**	**C-7.01 Confirms site measurements**	**C-7.02 Determines tile layout for best visual effect**	**C-7.03 Lays out grid lines**
	C-7.04 Evaluates rise and run of stairs		
Task C-8 Evaluates joints **24%**	**C-8.01 Accommodates existing joints**	**C-8.02 Determines additional joint requirements**	

D – Prepares materials — 14%

Task D-9 Inspects materials **22%**	**D-9.01 Confirms material consistencies**	**D-9.02 Checks materials for damage**	
Task D-10 Prepares material for installation **43%**	**D-10.01 Prepares tiles**	**D-10.02 Prepares stone slabs**	
Task D-11 Mixes materials **35%**	**D-11.01 Mixes materials for tile and stone**	**D-11.02 Mixes materials for mortar beds**	**D-11.03 Mixes materials for terrazzo**

E – Sets materials

24%

Task E-12 **Installs tiles** **56%**	**E-12.01 Applies setting material**	**E-12.02 Sets tiles**	**E-12.03 Installs accessories**
	E-12.04 Installs expansion and control joints	**E-12.05 Installs tile trim**	
Task E-13 **Installs stone slabs** **29%**	**E-13.01 Installs anchors**	**E-13.02 Applies stone slab setting material**	**E-13.03 Mounts stone slabs**
	E-13.04 Sets stone slabs		
Task E-14 **Pours terrazzo mixture** **15%**	**E-14.01 Installs divider strips for terrazzo**	**E-14.02 Applies bond coat**	**E-14.03 Trowels in terrazzo mixture**
	E-14.04 Works surface		

F – Finishes materials

14%

Task F-15 **Finishes installed product** **67%**	**F-15.01 Installs grout**	**F-15.02 Caulks joints**	**F-15.03 Seals material**
Task F-16 **Finishes terrazzo and stone** **33%**	**F-16.01 Grinds terrazzo and stone**	**F-16.02 Grouts terrazzo and stone**	**F-16.03 Seals terrazzo and stone**