



# Insulator (Heat and Frost)

## About this job

Insulators (heat and frost) perform critical work that helps keep important commercial and industrial equipment running even in the extreme climate of the North. They work with precision and have an eye for detail. Depending on the project, an insulator may work alone or as part of a team.



**INSULATOR (HEAT AND FROST) HOLDS NATIONAL OCCUPATION CLASSIFICATION (NOC) CODE #7293/72321**



- **Three-year program**
- **Eligible for Red Seal Endorsement**
- **Requires out of the territory technical training**
- **Construction**

## \$87,300

Estimated Average Journeyperson Salary

APPRENTICESHIP, TRADES, AND OCCUPATIONAL CERTIFICATION

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## What can I expect to do for work if I become an Insulator (Heat and Frost)?

Insulators (heat and frost) apply, remove and repair thermal and acoustical insulation (e.g., calcium silicate, glass foam, mineral wool, Styrofoam, fibreglass) on all types of commercial and industrial equipment (e.g., duct piping, heat exchangers, tanks, vessels). In general, insulators:

- read and interpret drawings and specifications to determine insulation requirements,
- select the amount and type of insulation, and the method of securing the insulation (e.g. spraying, pin welding, wiring, pasting, strapping, taping) according to the type of surface and various conditions the equipment is in,
- measure, cut and fit insulating material and coverings to the required shape and dimension,
- install vapour barriers and finish insulated surfaces by applying metal cladding, canvas, plastic sheeting or cement.

## What kind of working conditions can I expect?

Insulators (heat and frost) work both indoors and outdoors all year round in commercial and industrial settings that may require travel. They work with materials that create dust or debris when handled in work environments that may be hot or cold facilities. Insulators must observe safety precautions and wear protective equipment such as respirators, coveralls, gloves, steel-toed boots, hard hats and protective eyewear. They usually work a 40-hour week, however overtime may be required to meet construction

deadlines. Those employed in the maintenance and construction of industrial plants may be required to work shift work.

## What are some skills that are valued in this profession?

- manual dexterity and attention to detail,
- the strength, stamina and ability to use proper lifting techniques to lift items weighing up to 25 kilograms,
- the ability to work at various elevations, in confined spaces and in hot and cold environments, and
- the ability to work alone and in team environments.

## What is the minimum requirement to become an apprentice in this trade?

**Apprentices must obtain a minimum of 70% on the Trades Entrance Exam – TEE Category #1** or the equivalent education as outlined below. This must be done before signing the Apprenticeship contract and attending technical training.

## How long will it take to complete an Insulator (Heat and Frost) apprenticeship?

An apprenticeship takes about three years to complete, and includes three on the job periods and three technical training periods. You need to complete 1800 hours per period, for a total of 5400 hours.

## How long is technical training?

Apprentices will attend 630 technical training hours. Apprentices usually go to school for this program in **Alberta**.

Eligibility Requirements
Entrance Exam – Pass Exam 2 with a score of 70% or higher <b>or</b> Completion of the following high school courses <ul style="list-style-type: none"><li>• English 10-2 (pass) or Literacy 20 (65% or higher)</li><li>• Math 10C (pass) or Math 10-3 (65% or higher)</li><li>• Science 10 (pass)</li></ul> <b>or</b> All five Canadian General Educational Development (GED) tests
<b>SCHOOLS NORTH APPRENTICESHIP PROGRAM (SNAP) - SNAP</b> apprentices are not required to satisfy the entrance requirements prior to signing an apprenticeship contract. However, the SNAP apprentice must satisfy the entrance requirements <b>or</b> write the TEE before attending technical training.

Period	Technical Training <sup>1</sup>	Prerequisites for technical training	Hours <sup>2</sup>
<b>1st</b>	7 Weeks 210 hours	Entrance Exam and 900 hours	1800
<b>2nd</b>	7 Weeks 210 hours	Completed 1 <sup>st</sup> Period	3600
<b>3rd</b>	7 Weeks 210 hours	Completed 2 <sup>nd</sup> Period	5400

<sup>1</sup>Length of In-School Training

<sup>2</sup>Minimum Time Required to Complete (Includes Technical Training)

For more information:

[www.gov.nt.ca/Apprenticeship](http://www.gov.nt.ca/Apprenticeship)