

INSULATOR (HEAT AND FROST) (HEAT AND FROST INSULATOR)

Credential Issued:

ITA Certificate of Qualification (Heat and Frost Insulator)
Inter-Provincial Red Seal Endorsement (Insulator (Heat and Frost))
(Persons completing a formal apprenticeship also receive a Certificate of Apprenticeship)

Occupational Description:

“Heat and Frost Insulator” means a person who covers exposed surfaces of pipes, steam generators, ducts, process vats and related equipment with a variety of insulating materials

Program Duration & Structure:

The program will be delivered in a variety of formats combining in-school and work-based training, all designed to meet the competency standards and profile defined by the industry, and will generally take 4 years to complete. The program includes:

- In-school: 16 weeks* (approximately 4 weeks per level)
- Work-based: 5,920 hours

*The in-school / technical training requirement is typically met through block release training delivered by an ITA approved training provider. It can also be met through approved alternative training models (e.g. distance education, part-time) and / or level challenge exam where these options are available.

Program Completion Requirements:

Completion of 5,920 workplace hours:

- Sponsor attestation

Completion of technical training: (Requirement can be met through challenging a level exam where available)

- Level 1 - practical assessments and written level examination
- Level 2 - practical assessments and written level examination
- Level 3 - practical assessments and written level examination
- Level 4 - practical assessments and written level examination

Inter-Provincial Red Seal Examination

Program Challenge Requirements:

- 8,880 documented hours of directly related work experience required to challenge Inter-Provincial Red Seal examination.

Program Pre-requisites:

- Recommended Education: Grade 10 or equivalent including English 10, Mathematics 10 and Science 10.
- Preferred: Grade 12

Assessment Methods:

- In-school assessments (practical and written exams)
- Work-based assessments (practical)
- Final Assessment (Inter-Provincial Red Seal written examination)
- Levels 1 & 2 exams available for challenge

Linkages to Other Credentials:

Cross Program Credit

- Holders of a BC Certificate of Qualification in Steamfitter / Pipefitter may be eligible to receive practical experience credit and technical training credit.

Prior Learning Assessment:

n/a

Program Standards Documentation:

- National Occupational Analysis (2007) www.red-seal.ca
- Program Outline

Industry Program Standards Mechanism:

Construction Industry Training Organization (CITO) info@bccito.ca

Program Providers:

Institution-based component of the program is delivered by public post-secondary institutions (see www.educationplanner.bc.ca/apprenticeship.cfm for a list of schools), private training institutions, and secondary schools that have been approved by ITA.

Technical Training Content:

Level 1

Hand Tools
Power Tools and Shop Equipment
Rigging
Safety
Adhesives
Insulation Materials
Applying Materials to Pipes
Applying Materials to Ducts
Mathematics
Applied Science and Metrics
S.I. Units

Level 3

Applied Science
Cements
Finishing Techniques
Underground Installations
Applying Insulation to Low Temp Equipment
Applying Insulation to High Temp Equipment
Layout
Machines and Shop Equipment
Shop Practice
Blueprint Reading

Level 2

Sheet Metal Hand Tools
Layout
Pattern Development and Fabrication
Blueprint Reading
Mathematics
Applied Science
Applying Insulation to Equipment
Applying Insulation to Low Temp Systems
Applying Insulation to High Temp Equipment
Specialty Course

Level 4

Pads
Insulation Installation on Cryogenic Systems
Application of Refractory
Heat Traced Insulation
Jacketing Techniques
Expansion – Contraction Joints
Shop Practice
Metal and Plastic Layout
Blueprint Reading
Specifications
Applied Science and Mathematics

IP Examination Competencies: NOA 2007

1. Occupational Skills 17%
2. Industrial Application 35%
3. Commercial Application 25%
4. Asbestos Abatement 10%
5. Spraying Insulation Materials 5%
6. Fire Stopping and Smoke Seals 8%

Approved: March 2002(ITAC)

Updated: January 2006 (ITA)