



CONSTRUCTION
INDUSTRY COUNCIL
建造業議會

Grouting Worker Trade Test Mock Practical Test Paper

此文件關於灌漿大工工藝測試考題。如有需要索取此文件的中文版本，請致電 2100 9000 與香港建造業工藝測試中心聯絡。

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Trade Test for Grouting Worker

Trade : Grouting Worker

Grade : Skilled Worker

Test Contents : Please complete the following tasks at designated location in accordance with the requirements in the test paper: -

1. Follow the predetermined mixing ratio to produce the slurry for the following quality tests before grouting:- (10%)
 - (i) Flow test;
 - (ii) Bleeding test.

2. After completing the necessary preparation work:- (90%)
 - (i) Use mechanical-packer grout method to fill in cement mortar into $\varnothing 150\text{mm}$ casing:-
 - a. Check if the grouting machine is in proper condition
 - b. Properly connect the high pressure hose to grouting machine in the safety manner.
 - c. Install mechanical packer on the $\varnothing 150\text{mm}$ casing.
 - d. Use Air-packer grouting method to insert cement mortar into $\varnothing 150\text{mm}$ casing until the specified pressure. (4 bars / 58 lbf) is reached

 - (ii) Use Air-packer grouting method to insert cement mortar into $\varnothing 150\text{mm}$ casing:-
 - a. Check if the grouting machine is in proper condition.
 - b. Properly connect the high pressure hose to grouting machine in the safety manner.
 - c. Install Air-packer on the $\varnothing 150\text{mm}$ casing.

- d. Use grouting machine for injection of cement mortar into $\varnothing 150\text{mm}$ casing until the specified pressure. (3.5 bars /51 lbf) is reached.
- (iii) Use influent pipe method to fill the cement mortar into $\varnothing 150\text{mm}$ casing:-
- a. Check if the grouting machine is in proper condition.
 - b. Properly connect the high pressure hose to grouting machine in the safety manner.
 - c. Use correct method to insert cement mortar into $\varnothing 150\text{mm}$ casing.
 - d. Use grouting machine for injection of cement mortar into $\varnothing 150\text{mm}$ casing until the specified pressure. (3.5 bars /51 lbf) is reached.
- (iv) Use pressure-washing method to clean up the residual mortar within $\varnothing 150\text{mm}$ casing.
- a. Properly connect all equipments for pressure washing.
 - b. Clean up $\varnothing 150\text{mm}$ casing in proper manner.
- (v) Housekeeping & maintenance of tools after work completion.

Candidate should sign to confirm the predetermined unit of pressure:

Duration : 3 hours (including housekeeping work)

- Notes :
- (i) Candidate shall read the attached practical test notes carefully,
 - (ii) Candidate will be marked as fail if he cannot carry out safety precaution during the test, and
 - (iii) The test paper consists of 5 pages. Total score is 100. Passing mark is 60.

Notes to Candidates :

1. Candidates should read the test papers carefully and ask the invigilator for any queries.
2. Candidates should study the drawings and specifications attached to test papers, if any, before the test begins.
3. Candidates should carry out the test according to test papers, working drawings and specifications provided.
4. Candidates shall bring their own safety shoes, other safety equipment will be provided by trade testing centre. Candidates must take all necessary safety precautions to ensure work safety.
5. All tools and materials required by the test will be provided by trade testing centre, candidates should check and ensure their adequacy and quality. Candidates shall use the tools and materials properly based on trade practice. All the tools must be returned to trade testing centre after the test. The candidates may ask the invigilator for any problems.
6. Candidates are required to handle and move the tools and materials for use in the test, and to carry out associated works.
7. Invigilator will take record photos periodically during the test.
8. Candidates are not allowed to take any photo or video with cameras or mobile phones.
9. Candidates are not allowed to use their mobile phones during the trade tests, except for emergency situation.
10. The marking scheme is based on the following criteria :

- a) Understanding of drawing and specification
- b) Preparation works before commencement of test
- c) Working procedures
- d) Accuracy and quality of works
- e) Progress of works
- f) Proper handling and use of materials
- g) Proper use of tools and equipment
- h) Safety precautions
- i) Considerate of other trades
- j) Housekeeping after completion of test

- 11. All candidates must stop when time is up.
- 12. Candidates are required to return the test paper to invigilator after the test.
- 13. 11. Offering bribe to invigilator is an offence in law and trade testing centre will report to the ICAC for any such case.

In the event that the candidate fails to take any necessary safety precautions and / or works in any dangerous situations, he / she will be assessed failed