

HONG KONG CONSTRUCTION INDUSTRY TRADE TESTING CENTRE 香港建造業工藝測試中心

Refrigeration / Air-conditioning / Ventilation Mechanic (Thermal Insulation) Intermediate Trade Test Study Material for Written Test

(Version: IAT-SM-EN-01)



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This study material is a reference for candidate to prepare for attending written test in Intermediate

Trade Test:

- A notable disadvantage of polystyrene insulation over other thermal insulation materials is that
 polystyrene insulation has a relatively poor fireproof performance. It produces heavy smoke
 when burning and is not suitable for thermal insulation in high temperature areas.
- 2. In general, the pipe used for chiller water pipe system in a central air-conditioning system is black steel pipe.
- 3. In an air conditioning system, pipes marked with letters "CHW" indicates that the pipe is used to transport chilled water.
- 4. The electrical voltage for single phase power in Hong Kong is 220 volts.
- 5. For 1 kW electric apparatus working for one hour, it will consume 1 unit of electricity.
- 6. To put out electrical fire or fire caused by electrical equipment, it is suitable to use carbon dioxide gas type or dry powder type extinguisher.
- 7. The condensation (dripping) on chilled water pipes is because of the direct contact of the water pipe with moisture in the air.
- 8. In air conditioning system, pipes/ducts marked with letters "FAD" indicates that the pipe is used to transport fresh air.
- 9. Fresh air or exhaust duct is not necessary to provide insulation treatment.
- To conduct insulation treatment for horizontally installed water pipe, the longitudinal joint of the insulation duct should be placed horizontally.
- 11. When boiling asphalt, there should not be water nearby as hot asphalt will splash upon meeting with water.
- 12. For metal pins used for fiberglass insulation installation, the distances between the nail pins and the edge should not exceed 100mm.
- 13. For safety reasons, power tools used for construction sites should be AC 110V power.

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- 14. The blade teeth should face forward when installing blade on bow saw.
- 15. For content of thermal insulation materials, it is mandatory requirement to be free of asbestos.
- 16. Pins adhesive could be replaced by special glue as a construction adhesive.
- 17. Poor housekeeping of workplace will mostly be prone to happen of tripping and slipping accident.
- 18. When applying insulation treatment for water pipe with 90° try square, the tolerance of joints of insulation should be not greater than 5mm.
- 19. When conducting insulation treatment by glass wool, one must wear a mask.
- 20. The Mandatory Basic Safety Training Course for Construction Industry (Green Card) will last for one day or two evenings.

Precautions

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