

SECTION 220700 - INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.2 WORK INCLUDED:

- A. It is the intent of this Section of the specifications that all hot and cold surfaces of mechanical system components be insulated, unless specifically excluded herein, including existing.
- B. Insulate all new heating water lines and existing heating water lines where insulation is disturbed for construction.

PART 2 - PRODUCTS

2.1 COMPLIANCE:

- A. All insulation shall conform to the requirements of the building code and have a flame spread rating of less than 25 and smoke developed less than 50. Insulation shall be as manufactured by Johns-Manville, Owens-Corning, Armstrong, or Gustin Bacon.

2.2 WATER PIPING :

- A. All piping shall be insulated with 2-piece heavy density pipe insulation having an average "K" factor of .25 BTU at 70 degrees F mean, with all-service jacket. Thickness of insulation shall be as follows:
 - a. Domestic hot and cold water piping: 1" thick.
 - b. Heating water piping: 1" thick
 - c. Primary and secondary roof drain piping: 1" thick (Insulate bowls also)
- B. Pipe insulation shall be mechanically fastened to pipe systems. The insulation shall be covered with an all-service jacket. Fittings shall be insulated with mitered segments of insulation material and finished with a 1/4" layer of insulating cement. Flanges and valves shall be insulated with removable and replaceable covers fabricated from oversized pipe insulation and finished with an all-service PVC jacket. Valves shall be insulated as specified for fittings.

2.3 ROUND AND RECTANGULAR DUCTS:

- A. The exterior surface of all round and rectangular low pressure supply, return, fresh air, and combustion air ducts in unconditioned spaces shall be wrapped with one layer of 1-1/2" thick fiberglass, having an average "K" factor of .23 BTU at 75 deg. F. mean. The insulation shall meet standards NFPA No. 90A and No. 90B and shall have the Underwriters' Laboratories, Inc., label. Leave marker tag where balancing dampers exist

so that they may be found under insulation.

PART 3 - EXECUTION

3.1 GENERAL:

- A. The contractor shall provide a complete installation which is neat in appearance and functional. Remove all excess materials and packaging from job site.

3.2 INSULATION WORKMANSHIP:

- A. All insulation shall be applied by specialists experienced in the field, and shall be neat in appearance. Neatness in appearance shall be equated to proper insulation application procedures.

END OF SECTION 220700