SECTION 15250

PIPING INSULATION/MECHANICAL INSULATION

PART 1 - GENERAL

1.1 JOB CONDITIONS

A. Deliver material to job site in original non-broken factory packaging, labeled with manufacturer's density and thickness.

B. Perform work at ambient and equipment temperatures as recommended by the adhesive manufacturer.

1.2 ALTERNATIVES: Alternative insulations are subject to Architect approval. Alternatives to provide same thermal resistance within 10%.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Owens Corning

B. Johns Manville

C. Armstrong

D. Certainteed

2.2 GENERAL ADHESIVES AND INSULATION MATERIALS: Composite fire and smoke hazard ratings maximum 25 for Flame Spread and 50 for Smoke Developed.

2.3 MATERIALS AND COMPONENTS:

A. Indoor Cold Piping: Fine fibrous glass insulation, with factory applied vapor barrier jacket, molded to conform to piping, "K" value at 75 degrees F., maximum 0.24 BTU/in/sq.ft./degree F./hr. vapor barrier jacket 0.02 per/in. and puncture resistance 50 units.

B. Indoor Hot Piping: Fine fibrous glass insulation with factory applied general purpose jacket, moulded to conform to piping, "K" value at 75 degrees F. Maximum 0.25 BTU/in./sq.ft./degrees F./hr. and puncture resistance 50 units.

2.4 REFRIGERANT, CONDENSATE DRAIN: Foamed plastic closed cell, "K" value at degrees F. Maximum 0.28 BTU/in./sq.ft./degree F./hr., maximum water vapor transmission rating of 0.1 perms.

PART 3 - EXECUTION

3.1 PREPARATION

A. Do not install covering before piping and equipment has been tested and approved.

B. Ensure surface is clean and dry prior to installation. Ensure insulation is dry before and during application. Finish with systems at operating conditions.

3.2 INSTALLATION: Ensure insulation is continuous through inside walls. Pack around pipes with fire proof self-supporting insulation material, fully sealed.

3.3 INSULATE FITTINGS AND VALVES

A. Do not insulate unions, flanges, strainers, flexible connections and expansion joints. Terminate insulation neatly with plastic material troweled on bevel.

B. Finish insulation neatly at hangers, supports and other protrusions.

C. Locate insulation cover seams in least visible locations.

D. Paint insulation exposed to outdoors and under building with preservative paint as repair separation of joints or cracking of insulation due to thermal movement or poor workmanship.

3.4 INSULATION THICKNESS SCHEDULE

Insulation Thickness	*Pipe Sizes*	*(Inches)*
Horizontal domestic cold water above finished ceiling	All	½
Domestic hot water and return	All	½
Open sight drain run outs and vents above finished ceiling	All	1
Condensate drains	All	½
Refrigerant	All	¾
Chilled water	All	2

END OF SECTION