INSULATION MATERIALS

MASTICS AND COATINGS

S lvent type mastics with few exceptions are vapor barrier coatings and tney re used over insulation on both pipe and vessels that oper te below the ambient temperature. Their function is to prevent the entrance of moisture vapor that is seeking the cold surface of the pipe or vessel. If the vapor does find passage through the barrier, it will condense upon contact with the cold surface and before long the efficiency of the insulation is lost.

Solvent type mastics are produced in viscosities suitable or troweling or spraying. The spray type can also be applied by brush or hand. The hand method especially on pipe and small equipment results in more complete coverage leaving no pin holes. The hand method also gives better contact and adhesion to the insulation and the reinforcing membrane can be better embedde into the mastic The second coat can be satisfactorily applied by either the hand or brush method.

When using either a solvent type r an emulsion type mastic or coating, it is essential that sufficient time elapse between the application of the first coat and that of the second coat to allow for the complete dissipation of the solvents or wetting agents. This time element will vary considerably depending upon the type of mastic or coating, the specific brand, the viscosity, the thickness of the application, the temperature and the relative humidity.

There are some mastics of which their use and their effectiveness depends upon how well they remain flexible. It is desirable that they maintain their adhesiveness, elasticity and low moisture-permeance without slumping or flowing under heat or shrinking under cold.

Most mastics designed to function under these conditions do perform well on the lo-temp and dual-temp applications up to +250°F. Above that no satisfactory mastic is available; the oils are baked from them. They become brittle and crack away and allow moisture to penetrate the insulation. Frequent inspection and repair is necessary for such places.

On the following pages will be found the information necessary for the proper use and application of the mastics and coatings used in doing our work.