



technical bulletin

DATA SHEET

BITUMEN LINED ASBESTOS-CEMENT PIPE

GENERAL INFORMATION

The word "Bitumen" is a general term that applies to either a coal tar product, or an asphaltic type product. Either product can be, and is, used as a protective coating in many applications including coatings for the interior of water tanks, storage tanks, concrete surfaces, retaining walls, and the interior of potable water pipe. Coal tar pitch is a derivative of coal while asphalt is produced either from natural asphalt which occurs in veins similar to coal or is derived as a product of distillation from petroleum. Which type of bitumen to use, either coal tar pitch or asphalt, is a matter of choice with the applicator and depends upon end use as well as economics and the manufacturing facilities available. For the coating of our Asbestos-Cement pipe, we have selected an asphaltic product as manufactured by Koppers Company. The bitumen that we use is known as Inertol No. 49.

TECHNICAL INFORMATION

Inertol No. 49 is made of Gilsonite select, blown, and steam distilled asphalt. It is recommended for use by Koppers for reservoirs, filter beds, water tunnels, basins, concrete structures, and the coating of Asbestos-Cement pipe. The principle use of bitumen-lined Asbestos-Cement pipe is for use with potable water that is aggressive to Asbestos-Cement, such as soft or very soft water.

Our bitumen lining conforms to the requirements of ANSI A21.4 and AWWA specification C 104, Section 4-14 titled "Seal Coat". Under this paragraph is stated, "The seal coat shall be continuous and shall adhere to the lining at all points. The seal coat, after drying for at least 48 hours, shall have no deleterious effect upon the quality, color, taste, or odor of the potable water". Further, the method of testing for toxicity is in accordance with the FDA "Method of Testing for Toxicity of Coating Materials Intended for Use in Transporting or Holding Food or Potable Water" as described in Food Additives Amendment and Code of Federal Regulations, pages 13.0 through 13.8, April 16, 1973, Food and Drug Administration, U. S. Department of Health, Education and Welfare.

After the pipe has been coated, the requirements of C 104 are "That the seal-coated pipe shall impart to the water during any 24-hour test period no more than 25 ppm of hardness, nor 25 ppm of total alkalinity, and shall impart no caustic alkalinity".

The lining is applied to an average thickness of 2.0 mils with a minimum of 1.5 mils, and will withstand exposure to 2 percent and 10 percent sulfuric acid solution for a period of up to ten days.

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