

Getting to Know the Types of Asphalt, Its Manufacturing and Processing Methods and Its Application in Road Construction

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Abstract : Asphalt is generally a mixture of stone materials with continuous granulation and a binder, which is usually bitumen. Asphalt is made in different shapes according to its use. The most familiar type of asphalt is hot asphalt or hot asphalt concrete. Stone materials usually make up more than 90% of the asphalt mixture. Therefore, stone materials have a significant impact on the quality of the resulting asphalt. According to the method of application and mixing, asphalt is divided into three categories: hot asphalt, protective asphalt, and cold asphalt. Cold mix asphalt is a mixture of stone materials and mixed bitumen or bitumen emulsion whose raw materials are mixed at ambient temperature. In some types of cold asphalt, the bitumen may be heated as necessary, but other materials are mixed with the bitumen without heating. Protective asphalts are used to make the roadbed impermeable, increase its abrasion and sliding resistance, and also temporarily improve the existing asphalt and concrete surfaces. This type of paving is very economical compared to hot asphalt due to the speed and ease of implementation and the limited need for asphalt machines and equipment. The present article, which is prepared in descriptive library form, introduces asphalt, its types, characteristics, and its application.

Keywords : asphalt, type of asphalt, asphalt concrete, sulfur concrete, bitumen in asphalt, sulfur, stone materials

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