

3 - 1 Production of Subgrade Material from Coal Fly Ash

The purpose of this study is the establishment of technology to produce the solidified fly ash macadam as a alternative material of subgrade.

The solidifying process, which was established for fly ash discharged from a coal fired fluidized bed boiler, is improved to be available for that from a pulverized coal fired boiler.

The following process is proposed.

- ① Powdery fly ash is mixed with lime, gypsum and water.
- ② This mixture is molded, and solidified in warm and steam-saturated room.
- ③ Solidified fly ash is crushed to macadam.

Produced material with this process has high strength and chemical stability because of the complete chemical reaction, and is confirmed to have the conformity with subgrade macadam through the mechanical, chemical and on-the-spot test.

This fly ash macadam has some distinctive characteristics as follows.

- ① Possible to storage for long term.
- ② Possible to suppress the heavy metal elution.
- ③ Possible to use as upper layer subgrade material.

