

### 3-2 A MOVEMENT ON RESEARCH AND DEVELOPMENT OF HIGH STRENGTH ARTIFICIAL AGGREGATE PRODUCED FROM COAL ASH.

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Recent years in Japan, with the extension or new construction of coal firing thermal power stations, the increasing quantity of coal ash is produced every year. It is urgently required to study on technology which utilizes the coal ash effectively in the large quantity.

Under such circumstances, the high strength artificial aggregate, which is produced by a rotary kiln with the coal ash as main raw material, has been developed. This technology has been jointly developed by such company as Electric Power Development Co., Ltd., EPDC Coal Tech & Marine Co., Ltd., Taiheiyo Cement Corporation.

This aggregate is characterized by high strength and low water absorption due to its dense structure obtained by proper burning conditions.

Thus its use in the field in which the conventional artificial aggregate can not be applied is expected.

With the cooperation of electric power companies, general contractors and cement companies "Research Organization for High Strength Artificial Aggregate Concrete" was started in 1998, and since then the research activities have been conducted aiming at acquirement of official certifications.

In this paper, we report about result of Research Organization, which properties of high strength artificial aggregate and the various properties of concrete using the high strength artificial aggregate, etc.

