

DEVELOPMENT OF HIGH VOLUME FLY ASH (40-50 %)-GYPSUM COMPOSITE PLASTER FOR INTERIOR APPLICATIONS

Technology in Brief

Coal based thermal power plants have been a major source of power generation in India, where 75% of the total power obtained is from coal-based thermal power plants. Nearly 250 million tonnes of fly ash is generated per annum at present from these plants in the country which not only requires large area of precious land for its disposal but is also one of the major sources of pollution of both air and water. Due to pozzolanic nature of fly ash it can be used as mineral additive with gypsum for development of water resistant high strength binder. For the development of composite plaster dried fly ash was blended with POP, Ordinary Portland cement (43 grade) and additives in a ribbon powder mixture for the desired period to form uniform mixture. Utilization of fly ash –a by-product of coal based thermal power plants offers not only the solution of disposal problems, but also help to save cement, reduce carbon foot prints by reducing greenhouse gases emission, sustainable product, conserve natural resources and save energy & environment.

Salient features/Advantages

(i) Premixed Plaster and high workability

It is premixed plaster tested as per Indian Standards and substitute of cement No specialized skill is required in application. Provides better workability, smoother and consistent finish.

(ii) Light Weight Plaster and high strength

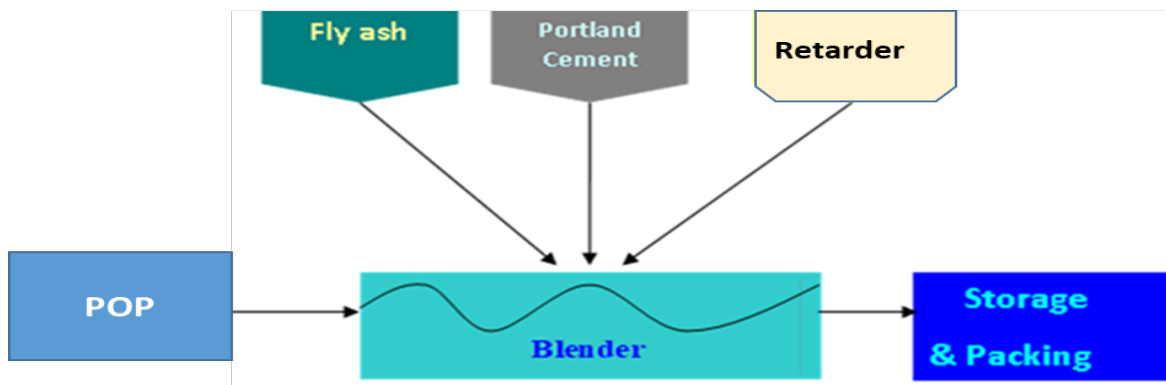
It is a low density plaster giving less dead load on structures. Excellent strength after curing and great adhesion with the surface.

(iii) Durability & fire resistant

Durability in changing temperature is high. Gypsum makes the plaster highly fire resistant.

(iv) Coverage

Product is eco-friendly and spreads and finishes to a minimum thickness covering large area.



Properties & Standards	NA
End Product(s)	Composite plaster
License/Commercialization	M/s MSP Steels and Power Ltd., Raigarh
TRL	7
Environmental Impact	Sustainable products
Setup - Equipment required	Ribbon mixture, packing machine etc.