Fly Ash

Product Overview:

- **Product Type:** Supplementary Cementitious Material (SCM)
- **Description:** Fly ash is a fine, powdery material produced as a byproduct from the combustion of pulverized coal in power plants. It consists of spherical glassy particles that are rich in silica (SiO2), alumina (Al2O3), and iron oxide (Fe2O3). Fly ash is an environmentally friendly material that can be used in a wide range of construction and industrial applications.
- **Source:** India and Malysia

Key Features:

- **Sustainable:** Fly ash is a sustainable material that reduces the carbon footprint of concrete and other construction materials.
- **High Pozzolanic Activity:** It enhances the properties of concrete and provides long-term strength and durability.
- **Cost-Effective:** Fly ash is cost-effective and readily available, making it an economical choice for various applications.
- **Chemical Resistance:** It enhances the resistance of concrete to sulfate and chloride attacks.
- **Reduced Heat of Hydration:** Fly ash helps in reducing the heat generated during the cement hydration process.
- **Improve Workability:** Reduces water demand while improving slump characteristics and extending workability time for easier mixing, Pumping, and finishing of concrete.

Applications:

- **Concrete Production:** Fly ash is widely used as a supplementary cementitious material in concrete production, reducing the need for Portland cement and lowering the environmental impact.
- **Mortar and Grout:** It improves the workability and long-term performance of mortar and grout in construction projects.
- **Highway Construction:** Fly ash is used in road construction for stabilizing soils and as a partial replacement for cement in concrete pavements.
- **Brick and Block Manufacturing:** It is utilized as an ingredient in the production of bricks and blocks, enhancing their strength and durability.
- **Soil Stabilization:** Fly ash can be mixed with soils to improve their engineering properties, making it valuable in construction and infrastructure projects.
- **Waste Stabilization:** It can be used to stabilize hazardous and non-hazardous waste materials.

Technical Specifications:

Properties	Unit	ASTM C618 Class F
Silicon Dioxide, Aluminum Oxide, Iron Oxide (Si02 + Al203 + Fe2O3)	%	70 Min.
Sulfur Trioxide (SO3)	%	5.0 Max.
Moisture Content (H2O)	%	3.0 Max.
Loss on Ignition (L0I)	%	6.0 Max.
Fineness - Retained on 45 pm (No. 325) sieve	%	34 Max.
7 day (% of control)	%	75 Min.
28 day (% of control)	%	75 Min.
Water Requirement (% of control)	%	105 Max.
Autoclave Expansion or Contraction	%	0.8 Max.

Quality Standards:

Fly ash products conform to ASTM C618 and other international standards for supplementary cementitious materials.

Storage and Handling:

Store fly ash in a dry environment to prevent moisture absorption. Handle with care to minimize dust generation.

Environmental Benefits:

Using fly ash in construction materials significantly reduces greenhouse gas emissions and conserves natural resources. It is an environmentally responsible choice for sustainable construction practices.

masheed is a **leading supplier** of Flyash in Saudi Arabia. We maintain a leading position by delivering the best value to all our stakeholders in a sustainable manner. We are dedicated to both **environmental preservation and societal progress**

For more information about cement replacment:
Email us on info@masheed.com.sa
www.masheed.com