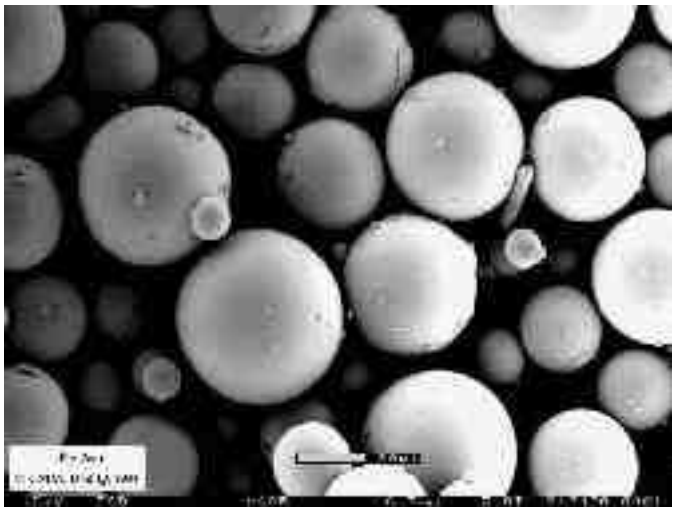
ASH TECH
The Fly Ash People

ABOUT US

ASH TECH, with its corporate headquarters in Delhi, India, has recycled 12,50,000 tons approx. of fly ash in India for more than a decade. With Five distribution terminals, we are one of the major fly ash suppliers to Industries like Ready Mix Concrete, Cement Plants, Roofing Sheet Manufacturer, Bricks, Blocks, Interlock Blocks & Pavers, and Building Contractors etc.

Dry Graded Fly Ash from ESP, Silos can be supplied. We have our own fleet of trucks, bulkers & highly trained staff for quality maintenance & round the clock operations. We have installed our own state of art equipment for collection of Fly Ash from ESP's (Electro Static Precipitators) at the power plants. We can supply fly ash of different quality and properties as per your specification at very competitive rates, in bulk carriers, Big Bags or packed in HDPE bags (40 kgs).

We are also regularly exporting fly ash to Nepal, the Middle East, Gulf and Saudi Arabia.



India Office:
L-10 Kailash Colony,
New Delhi-110048
India
Ph: +91-11-55656805 Fax: +91-11-41622968
Mobile: +91-9810016022
E-mail: support@iflyash.com Visit Us at: www.flyash.co.in

Dubai Office:
Kimble Marfleet
Marketing & Sales Manager - Gulf Region
Gulf Concreting Products FZC
Tel No. +971 2 6273998
Fax No. +971 2 6273994
Mobile No. +971 50 8116019
E-mail: kimblemarfleet@gcpuae.ae

ASHCRETE
Dry Fly Ash

FLY ASH

SUPER ASHCRETE

Class F fly ash

Product Description

ASHCRETE (Fly Ash) is a pozzolan for concrete, consisting of the "finely divided residue that results from the combustion of ground or powdered coal" as defined by ASTM C 618. A pozzolan, as defined by ASTM, reacts chemically with calcium hydroxide produced by the hydration of portland cement to form additional cementitious compounds. **ASHCRETE** Class F fly ash significantly increases the ability of concrete to resist attack from sulfates in soil or ground water. Additionally, Class F fly ash has been proven through extensive research and field experience to be highly effective in mitigating the deleterious effects of expansive alkali-silica reactions (ASR) in concrete. It is produced from the combustion of pulverized bituminous coal.
When correctly proportioned, concrete which contains fly ash can have equivalent or greater 28-day compressive strengths when compared to Ordinary Portland Cement Concrete. Due to the pozzolanic reaction fly ash concrete will continue to gain strength beyond 28 days exceeding that of Ordinary Portland Cement Concrete.

Major Benefits

- Makes for easier placement.
- Improves pumpability.
- Improves finishability.
- Reduces water requirements.
- Improves durability.

Applications

ASHCRETE Class F fly ash can be used as a pozzolan in virtually any concrete application. When correctly proportioned Class F fly ash will add many benefits such as increased strength, increased durability and reduced permeability. Class F fly ash is particularly beneficial in high performance concrete applications where high compressive strengths are required or where severe exposure conditions demand highly durable concrete. Class F fly ash is also very effective at mitigating problems associated with alkali-silica reactions. In mass concrete placements where low heats of hydration are required **ASHCRETE** class F fly ash is very advantageous in controlling temperaturerise.

Quality & Specifications

ASHCRETE Class F fly ash which is provided for use in concrete applications will meet or exceed the performance requirements of ASTM C 618. To ensure compliance with ASTM C 618 our on-site and central quality control laboratories carefully sample and test the fly ash. In addition independent commercial testing laboratories provide additional compliance testing.

Shipping and Delivery

ASHCRETE Fly Ash is normally shipped, stored and batched in the same manner as portland cement. Our trained representative can suggest the most appropriate and economical procedure for given conditions.

Features ASHCRETE (Class F Fly Ash)

- ***Increases ultimate strength***
- ***Reduces drying shrinkage***
- ***Decreases permeability***
- ***Lowers heat of hydration***
- ***Reduces creep***

TYPICAL SPECIFICATION OF

ASHCRETE
Dry Fly Ash

CLASS F - FLY ASH

Chemical Analysis

S.No.	Characteristics	Results
1	Loss on ignition	1% Max
2	Silica ($Si O_2$)	57.65% Min
3	Iron Oxide ($Fe_2 O_3$)	4.26% Min
4	Alumina ($Al_2 O_3$)	26.90% Min
5	Calcium Oxide (CaO)	2.32% Min
6	Magnisium Oxide (MgO)	1.51% Min
7	Total Sulphur (So_3)	Traces
8	Insoluble Residue	---------
9	Alkalies a) Sodium Oxide (Na_2O) b) Potassium Oxide (K_2O)	 0.11% Min 1.48% Min

Physical Analysis

1	Lime Reactivity, N /mm^2	6 Min
2	Fineness(Blaine), cm^2/gm	<4000
3	Retention On 45 Micron Sieve	10%
4	Drying Shrinkage, percentage	0.06
5	Soundness by Autoclave expansion, percent	0.05
6	Compressive Strength, as percent of strength of corresponding plain cement mortar cubes	80

TYPICAL SPECIFICATION OF SUPER ASHCRETE

CLASS F - FLY ASH

Chemical Analysis

S.No.	Characteristics	Results
1	Loss on ignition	1% Max
2	Silica ($Si O_2$)	57.65% Min
3	Iron Oxide ($Fe_2 O_3$)	4.26% Min
4	Alumina ($Al_2 O_3$)	26.90% Min
5	Calcium Oxide (CaO)	2.32% Min
6	Magnisium Oxide (MgO)	1.51% Min
7	Total Sulphur (So_3)	Traces
8	Insoluble Residue	---------
9	Alkalies a) Sodium Oxide (Na_2O) b) Potassium Oxide (K_2O)	 0.11% Min 1.48% Min

Physical Analysis

1	Lime Reactivity, N /mm^2	8 Min
2	Fineness(Blaine), cm^2/gm	>6000
3	Retention On 25 Micron Sieve	5%
4	Drying Shrinkage, percentage	0.06
5	Soundness by Autoclave expansion, percent	0.05
6	Compressive Strength, as percent of strength of corresponding plain cement mortar cubes	80

Material Safety Data Sheet

ASHCRETE
Dry Fly Ash

PRODUCT: ASHCRETE (FLY ASH)

Hazardous Nature: This product is potentially classified as hazardous depending on jurisdiction and use.

PRODUCT IDENTIFICATION

Pozzolan, Fly Ash, Class F Fly Ash, Class C Fly Ash

Use

Supplementary cementitious material for concrete and concrete products. Also used in soil stabilization and as a fine filler in asphalt and other products.

Hazardous Chem Code

Not Applicable

Poisons Schedule

Not Scheduled

Dangerous Goods Class

Not Applicable

PHYSICAL DESCRIPTION / PROPERTIES

Appearance: Fine powder - light to dark grey or shades of brown or buff in color.

Boiling/Melting Point: Melting point > 1400 o C

Vapour Pressure: Not Applicable

Percent Volatiles: Not Applicable

Specific Gravity: 2.05 to 2.8

Flash Point: Not Applicable

Flammability Limits: Not Applicable

Auto Ignition Temp: Not Applicable

Solubility In Water: Essentially insoluble. Some Class C fly ashes may have soluble sodium sulfate (1-8%).

Respirable Fraction: Approximately 20% - 40% of particles are below 7 micron in diameter (i.e. in the respirable range).

Other Properties: Not Applicable

Ingredients

Chemical Entity Proportions

Silica-Crystalline, as Quartz 1-5%

Mullite 1 - 5%

Note: Fly ash is a by product of coal combustion. The material is composed primarily of complex aluminosilicate glass, mullite, hematite, magnetite spinel and quartz. The proportion of quartz (crystalline silica) in the fly ash varies depending on the quartz content of the coal. Class C fly ash may have 1-7% free CaO and calcium sulfate as well as calcium aluminosilicate glass.

HEALTH HAZARD INFORMATION

Short Term Exposure

Swallowed: Unlikely under normal conditions of use. Swallowing fly ash may cause abdominal discomfort.

Eyes: Irritating to eyes causing watering and redness.

Skin: Irritating to skin - can cause irritant/contact dermatitis from mechanical abrasion or alkaline composition(Class C fly ash).

Inhaled: Irritating to the nose, throat and respiratory tract causing coughing and sneezing.

Long Term Exposure

Swallowed: Not Applicable

Eyes: Not Applicable

Skin: Not Applicable

Inhaled: Repeated inhalation of dust containing crystalline silica can cause bronchitis, silicosis (scarring of the lung) and lung cancer. It may also increase the risk of scleroderma (a disease affecting the connective tissue of the skin, joints, blood vessels and internal organs). Studies have shown that smoking increases the risk of bronchitis, silicosis and lung cancer in persons exposed to crystalline silica. It is recommended that all storage and work areas should be smoke free zones. Inhalation of high levels of fly ash dust may result in severe inflammation of the small airways of the lung and asthma-like symptoms.

First Aid

Swallowed: Give plenty of water to drink. If any acute gastrointestinal distress, seek medical attention.

Eyes: Flush thoroughly with flowing water for 15 minutes. If symptoms or irritation persist, seek medical attention.

Skin: Wash thoroughly with mild soap and water. Some Class C fly ashes are quite hydraulic and alkaline; contact with wet skin may result in burns.

Inhaled: Remove to fresh air, away from dusty area. If symptoms persist, seek medical attention.

Exposure Limits

Crystalline Silica (Quartz): 0.2 mg/m 3 TWA (time-weighted average) as respirable dust.

Dust (NOS - not otherwise specified): 10 mg/m 3 TWA as inspirable dust. However, where a state, territory or local authority prescribes a lower exposure standard, the lower standard applies. Recommendations: Keep exposure to dust as low as practicable. Respirable crystalline silica levels should be kept below 0.1 mg/m 3 TWA, and respirable dust below 5 mg/m 3 TWA.

Material Safety Data Sheet

Engineering Controls

Avoid generating dust. When handling fly ash, use local mechanical ventilation or extraction in areas where dust could escape into the work environment. For bulk deliveries, closed pumping systems are recommended. For handling of individual bags, follow instructions below if no local exhaust ventilation is available. Work areas should be cleaned regularly by wet sweeping or vacuuming. If generating dust cannot be avoided, follow personal protection recommendations below.

Personal Protection: Skin: Wear loose comfortable clothing. Wash work clothes regularly. Apply barrier cream to hands or wear cotton or light duty leather gloves or equivalent.

Eyes: Safety spectacles with side shields or safety goggles should be worn if dust likely to be generated.

Respiratory: None required if engineering and handling controls are adequate. If dust is generated wear a suitable particulate respirator . Use only respirators which bear the standards mark and are fitted correctly. Note that persons with facial hair will have difficulty in obtaining a satisfactory face seal.

Ventilation: Refer to Engineering Controls

Flammability: Non-flammable

Storage and Transport

Keep in a dry place. When handled pneumatically use standard dust filters on vehicles and silos.

Spills and Disposal: Follow above safety requirements under "Precautions for Use" and wet sweep or vacuum dust with industrial vacuum cleaner. A fine water spray should be used to suppress dust when sweeping. Collect in containers and dispose of as trade waste in accordance with local authority guidelines. Keep out of stormwater and sewer drains.

Fire/Explosion Hazard: Not flammable. Does not decompose on heating.

India Office:
L-10 Kailash Colony,
New Delhi-110048
India
Ph: +91-11-55656805 Fax: +91-11-41622968
Mobile: +91-9810016022
E-mail: support@iflyash.com Visit Us at: www.flyash.co.in

Dubai Office:
Kimble Marfleet
Marketing & Sales Manager - Gulf Region
Gulf Concreting Products FZC
Tel No. +971 2 6273998
Fax No. +971 2 6273994
Mobile No. +971 50 8116019
E-mail: kimblemarfleet@gcpuae.ae