



#### **General Description:**

Two major classes of Fly Ash are specified in ASTM C 618 which are designated as Class F & Class C resulting from the type of coal burned. It is the class F fly ash which finds its application in most of the concrete applications.

**ASHCRETE** Fly ash is a Class F Fly Ash, obtained from the selected pulverized Bituminous Coal burning Power Plants. MM-34 is mainly composed of very fine Alumina Silicate amorphous spherical particles with some low presence of Alkalis, which are produced as a result of combustion of pulverized coal. These ashes are transported from the fuel burning chamber by the flue gases to the ash collection system where they are entrapped by using Bag filters & Electrostatic precipitators.

Due to efficient burning of coal MM-34 has a considerably low un-burnt Carbon content which is reflected by its very low LOI (Loss on ignition) factor surpassing the requirements even as specified in ASTM C 618. While processing & shipment extreme care is taken to keep the moisture content in MM-34 at the lowest to maintain its high pozzolanic properties.

**ASHCRETE** Fly Ash MM-34 is a high quality, fine, low carbon Class F Fly ash recommended for high performance concrete & mortar applications. Beside economic & ecological benefits, the use of MM-34 when added to a concrete.

- improves workability & finish
- increases its strength & durability
- reduces segregation, permeability
- reduces bleeding, heat evolution
- enhances sulfate resistance

Being rich in reactive silica MM-34 has high pozzolanic properties which mean that it will react with the free Calcium hydroxide produced as a result of cement hydration to form more calcium silicate hydrates responsible to bond concrete together.

### **Applications:**

MM-34 is a pozzolan which is recommended to be used in concrete to give several economic & ecological benefits.

Pavements, Roads & bridges
Canal lining & Swimming pools,
Tunnels & Marine structures
Water Storage dams & reservoirs
Hydro Electric Power Plants
Railways sleepers Metro Railways
Airports & Runways
Nuclear Establishments
High-rise Mega structures, Stadiums
Concrete pre-casts



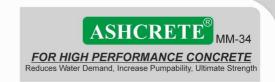








# Fly Ash (Class F)



**QUALITY CONTROL:** 

A very strict quality control protocol is observed to ensure the typical parameters of **ASHCRETE** Fly Ash MM-34 in optimum ranges.

#### **PACKING:**

Fly Ash MM-34 is available in 1-1.4 Ton jumbo HDPE bags. Smaller packing or bulker transportation could be arranged against specific requirements.

#### **Specifications & International Standards:**

Characteristics	ASHCRETE <sup>®</sup> Fly Ash MM-34	Requirements as per IS:3812 Part 1	Requirements as per ASTM:618
Chemical Properties :			
SiO <sub>2</sub> + AL <sub>2</sub> O <sub>3</sub> + Fe <sub>2</sub> O <sub>3</sub> %	80-90*	70.0 min	70.0 min
Silicon Dioxide SiO <sub>2</sub> %	50.0 min*	35.0 min	N.S.
Sodium Oxide Na₂O %	1.0 max*	1.5 max	N.S.
Magnesium Oxide MgO %	2.0 max*	5.0 max	N.S.
Total Sulfur tri oxide SO <sub>3</sub> %	1.0 max*	3.0 max	5.0 max
Chlorides %	0.05 max*	0.05 max	N.S.
Loss on Ignition %	2.0-5.0*	5.0 max	6.0 max
Reactive Silica %	20.0 min*	20.0 min	N.S.
Physical Properties :			
Fineness m² /kg	320-400*	320 min	N.S.
Retention On	20.0-34.0*	34.0 max	34.0 max
45 Micron Sieve %			
Soundness by Autoclave %	0.5 max*	0.8 max	0.8 max
Compressive Strength,			
as percent of strength of	80 min*	80 min	75 min
corresponding plain cement			
mortar cubes %			
Specific Gravity	2.1 - 2.3*	N.S.	N.S.

<sup>\*</sup> Based on averages of 100 ton lot.

<sup>\*</sup> The parameters as given above are accurate to the best of our knowledge however this information is offered without any guarantee. Product performance may be affected by many factors including storage, transportation, application & use. User testing therefore is essential to determine the suitability of product for intended method of application & use. In no event shall the seller company be liable for any consequential, direct or indirect or any other damage from its use whether arising from negligence or other.



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