

## NOVA SUPERFINE

**NOVA SUPERFINE** is an ultrafine mineral admixture produced by a specially developed grinding technology. Granulated Blast Furnace Slag of high glass content is used as the main raw material. It has a well-defined and steep particle size distribution with a max particle size of 16 microns as compared to 60-80 microns for normal cement. **NOVA SUPERFINE** is ideal mineral admixture for production of high strength and high performance concrete and can replace silica fume in such applications. Works on the principle of particle packing in concrete and also as pozzolonic admixture.

### APPLICATIONS

- **High Strength Concrete (HSC)** with improved workability.
- **High Performance Concrete (HPC)** with improved workability, low permeability and enhanced durability.
- **Shotcrete** with improved workability and high early strength.
- **High Strength Grout** with improved fluidity and early strength.

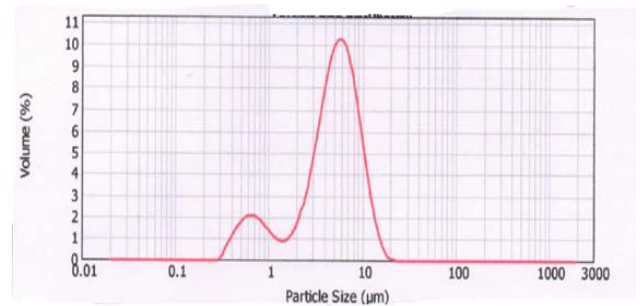
### FEATURES

- Better performance as compared to silica-fume in improving workability, slump and compressive strengths of concrete.
- Increases durability of concrete. Improves corrosion resistance.
- Economical as partial cement replacement even low grade concretes.
- Non-hazardous and environmentally safe.

### RECOMMENDED USAGE

It is recommended to replace 5 -20% by weight of the OPC by **NOVA SUPERFINE** in the applications mentioned above. However optimum dosage should be arrived by actual tests to obtain satisfactory results and economic benefits.

### TYPICAL PARTICLE SIZE DISTRIBUTION



### SPECIFICATIONS

Chemical Composition	% Wt.
Cao	30 – 35
Al <sub>2</sub> O <sub>3</sub>	18 -20
Fe <sub>2</sub> O <sub>3</sub>	1.8 – 2.2
SO <sub>3</sub>	0.25 – 0.75
MgO	7.5 – 10
SiO <sub>2</sub>	32 – 36
Physical Characteristics	
Nature	Dry powder
Specific Gravity, gm/cm <sup>3</sup>	2.8 - 3.0
Bulk Density, kg /m <sup>3</sup>	600-800
Particle size distribution	
D <sub>50</sub> , μ	<5
D <sub>95</sub> , μ	<15

### TYPICAL CONCRETE MIXES WITH NOVA SUPERFINE

Materials	M-80	M-60
OPC, Kg.	480	430
Flyash Kg.	80	50
Ultraslag-05 Kg.	50	50
Water Kg.	145	140
AGG 20mm Kg.	607	530
AGG 10 mm Kg.	518	360
Sand ( Natural ) Kg.	610	650
Admixture %	1.0	1.0
Workability		
Initial	Collapse	Collapse
60 Mins.	170 mm	220 mm
120 Mins.	110 mm	180
Compr.Strength		
3 D	48	37.5
7D	75	56.0
28D	87	69.8

## STORAGE & HANDLING

**NOVA SUPERFINE** is a micro-fine product and needs to be handled and stored with care. Unopened bags should be stored in dry and cool area, preferably clear of the ground. It has shelf life of 6 months, when stored in original closed bags in ventilated dry area.

## AVAILABILITY

**NOVA SUPERFINE** is available in 25 kgs. Laminated HDPE / PP Bags.

All information contained herein is not a warranty of any kind and is intended as guide for product usage. Actual results may vary under different test conditions. Company reserves the right to change or update the information contained without any notice based on company's research or experience.