Navosil

Navosil is a blend of inorganic polymers, naturally occurring minerals that are chemically modified. Navosil is made primarily from industrial by-products generated by other industries that would normally be placed into landfills. The consistent chemical composition and tightly controlled particle size distribution result in highly reactive and superior quality additive for concrete applications.

Navosil has been engineered using the principles of thermodynamics and solution chemistry taking both cement and supplementary cementitious materials' reactivity into consideration to increase concrete's mechanical properties and durability. Chemically Navosil is a heterogeneous blend of oxides of silicon and aluminum with no deleterious impurities. Utilization of Navosil in concrete not only increases the strength and durability but also provides environmental and economic benefits.

Applications

All concrete applications, including pre-cast products, cement mortar, etc.

Physical Properties Of Navosil

1	**Color**	Grey Powder
2	**Specific Gravity**	2.4 ~ 2.6
3	**Retention on 45 Micron**	1% ~ 3%
4	**Bulk density (Loose)**	0.75 ~ 0.90 gm/cc
5	**pH of 10% Navosil Solution at 28 deg. C**	8 ~ 10
6	**Moisture Content % by mass**	< 1.0%

Benefits Of Navosil

- Stronger, sturdier and denser than conventionally produced concrete, partially due to the filling on concrete pores by the reaction products of Navosil
- Increased strength
- Reduced Shrinkage
- Decreased permeability to water and other corrosive chemicals
- Because of the ability of Navosil's reaction product to hold extra water the concretes produced by adding Navosil undergoes less problem associated with shrinkage and bleed water.
- Better economics when compared with micro silica.

Standard: Complies to ASTM C 1797

Dosage: 1.00% to 10.00%. Whereas optimum dosage has to be found based on trails.

Shelf Life: 6 months

Pack Size: 25 Kgs / 50 Kgs

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Comparison with Other Pozzolans

Pozzolan	Water Demand	Pozzolanic	Color	Reactivity	Percentage Replacement	Water Permeability
Navosil	Neutral	No	Grey	High	1 - 10%	Decreased
Micro Silica	Increased	Yes	Grey	High	5 - 8%	Decreased
Ultrafine Fly ash	Reduction	Yes	Grey	Low	5 - 10%	No effect
Metakaolin	Increased	Yes	Off-white	Low	5 - 8%	Decreased
Ultrafine Slag	Neutral	No	Off-white	Moderate	5 - 10%	No effect

Technical Support:

For any clarification, please contact Navozzo Materials Private

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