



KEMFUME

A super pozzolan silica fume high performance concrete admixture

Description

KEMFUME is a dry powder used as an admixture to Portland cement composition as a super-pozzolan. It is submicronic in size, and its highly reactive KEMFUME have been used with Portland Cement, thus, producing high strength and low permeability at the same time.

Where to use

The durability of KEMFUME concrete is well documented. And recognizable as the standard by which high performance concretes (HPC) are measured. Using White KEMFUME architectural and colored concretes can now benefit from the increased durability of HPC without affecting the desired color.

KEMFUME used in the following concrete constructing:

- Structural concrete.
- Pre-cast concrete.

Advantages

- KEMFUME is known as a glass hard, inert, hollow silica sphere in shape.
- It is used to reduce the weight of plastics, rubbers, resins, cement...etc., in addition to other benefits in other situations.
- Its spherical nature is particularly useful in increased filler loading and improved rheology.
- Increased water & gas tightness.
- Increased abrasion resistance.
- Increased compressive strengths.
- Improved cohesion and adhesion of mortar, grout, and shotcrete mixes.
- High early strengths enable faster production schedules.
- Improved bond strengths.
- Chloride free – doesn't cause rust for

Properties

Absolute density. (g/cm ³)	2.2 typical.
Coarse particles (+45 μ m)	3.21 typical.
Avg. Particle size (μ m)	< 0.5
Reflectivity	+55%
Surface area (Sq .M/gm)	23 typical.
Partical shape	Spherical.
Bulk density (lb /cft)	27 avg.
Colour	Light grey

How to use

Mixing

KEMFUME is added with the cement to the concrete at the batching plant before the gauging water.

Dosage :

Mix designs containing 5 to 20% KEMFUME based on proportioned cement weight. Are common to achieve the desired fresh and hardened concrete properties.

Application

Low dosages (<5%) of white KEMFUME. May actually perform as a mild flow enhancer, replacing and freeing water from between cement grains. At higher dosages white KEMFUME. Will have a negative water demand on the mix and will require the use of water reducing admixture to control slump and workability as (KEMFLOW super F).White concrete in addition to architectural applications is commonly used for light reflectivity and safety go hand – in – hand while improving durability properties white KEMFUME will not discolor specially colored mortars, grouts, architectural casting.

Optimum mixing time 2 minutes .The water quantity should be measured carefully according to the final consistency needed.

KEMFUME concrete should be handled and placed as conventional concrete. Curing should be commenced immediately after placement.

Call Prokem to discuss other available varieties of KEMFUME products and their applications.

Product Data Sheet
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Packaging

15 Kg

Shelf life & Storage

Unlimited, when stored in accordance with manufactures instructions.

Health and Safety

- KEMFUME is non-toxic. Any splashes to the skin should be washed immediately with water.
- Splashes to the eyes should be washed immediately with water and medical advice should be sought.
- Wear a face mask against dust if there is a heavy dust development.
- Do not dispose of into water of soil but according to local regulations.
- Non – hazardous, no problems during transport.



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SPECIALITY CHEMICALS

Additional Information

PROKEM provides the construction industry with a comprehensive range of construction kemicals and specialty products answering the queries of modern engineers for trouble free durable structure. PROKEM designs tailor made products should there be critical application that requires specific properties rather than our main range.

For our customer's satisfaction, PROKEM extends technical services to include after sales support to assist users in a proper handling of our products.