

Densified Micro Silica

DESCRIPTION

TamCem Micro Silica is composed of silicon dioxide (SiO₂), collected from silicon metal and ferrosilicon. TamCem Micro Silica will react with the Calcium Hydroxide from the cement, which will form more of the Calcium Silicate hydrate, increasing the strength of the concrete. Using Tamcem Micro Silica will also increase the durability of the concrete.

KEY BENEFITS

- > Precast usage
- > Produces high early and higher ultimate compressive strengths.
- > Eliminates steam curing, saving on heating costs.
- > Shotcrete usage
- > Less material wastage and greater efficiency of product use.
- > High impermeability and significantly less rebound loss.
- > Protects reinforcing steel from corrosion.
- > Improved bonding strength.
- > Thicker applications with each nozzle pass and enhanced pumpability.

TYPICAL APPLICATIONS

- > High performance concrete
- > Precast concrete
- > Spray applied concrete
- > Concrete exposed to environmental and chemical attack
- > Marine concrete
- > Ready mix concrete for high strength concrete

TECHNICAL DATA

TamCem Micro Silica	
Component (% by Weight)	Silicon metal production
SiO ₂	> 85%
Cl	0.09 - 0.2%
Avalialbe Alkalis	0.5 - 1.5%
Loss on Ignition	2.0 - 4.0%
Moisture Content	0.1 - 0.35%
Particle Size	0.03 - 0.1 microns
Retained on 325 Sieve (45 micron)	0.4 - 2.5%
Surface area (BET method)	15 - 28 m ² /g
Dry bulk density (densified)	500 - 700 kg/m ³

All technical data stated herein is based on tests carried out under laboratory conditions.

APPLICATION GUIDELINES

Dosage can be adjusted to meet various mix design requirements or to specific job site conditions. Trial concrete or grout mixes must be carried out to determine the appropriate dosage.

Typical dosage is between 5% and 15% of cementitious powder content.

Note: TamCem Micro Silica should not be used with a competitor's admixture without gaining Technical advice from your local Normet representative.

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STORAGE

TamCem Micro Silica should be stored at room temperature (min 10°C and max 38°C), kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, then a shelf life of one year can be expected.

HEALTH & SAFETY

TamCem Micro Silica should only be used as directed. We always recommend that the Safety data sheet is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Safety data sheet is available upon request from your local Normet representative.