

Lyksor® Micro Silica

Silica Fume for Concrete, Shotcrete and Mortars

Product Definition

Lyksor® Micro Silica is a mineral additive that can be used for normal and shotcrete that enhances compressive strength, flexural strength, fracture mechanics and impermeability of the cement paste by increasing its micro structure.

Use

Lyksor® Micro Silica is recommended for use in the applications and purposes below.

- Applicable at traditional and wet system shotcrete applications.
- Applicable at normal/lightweight, pumped/pumpless concrete production.
- Applicable at concretes with low cement dosage.
- Favorable for production of high strength concrete.
- Favorable at back fill grouting application performed behind TBM Segments

Advantages and Properties

- Enhances technical properties of every type of concrete such as compressive strength, flexural strength, fracture mechanics and impermeability.
- Decreases chloride permeability.
- Decreases accelerant usage ratio at shotcrete applications and allows application as thicker layers and decreases rebound ratio.

Application Details, Suggestions and Warnings

Should be added at concrete batching plants in to the mixture after cement.

Technical Properties

| | |
|--------------------------------|----------------------------|
| Colour – Appearance | Beton Gri |
| Density | 0,55 - 0,70 kg/litre |
| Chloride Amount | < %0,1 |
| Blaine | > 15000 m ² /kg |
| SIO ₂ Ratio | > %85 |
| CaO Ratio | < %1 |
| SO ₃ Ratio | < %2 |
| Al ₂ O ₃ | < %1 |
| MgO | < %1 |
| Aktivitiy Index | > %95 |
| Specific weight | 2300 kg/m ³ |
| Particle Ratio <0,045 mm | < %40 |

Recommended Dosage

The recommended dosage rate of Lyksor® Micro Silica for general concreting operations is between 4 % - 10 % of the weight of cement. Overdose may increase water demand to be balanced with Lyksor Nanoment / Nanocast series of high water reducing admixtures. It should be considered that the required dosage of Lyksor® Micro Silica to achieve a target performance will be different for each concrete mixture. The appropriate dosage should be determined on trial batches. Please contact Lyksor R&D department for technical support.

Cleaning of Tools

Concreting tools contact with Lyksor® Micro Silica can be easily cleaned with water.

Packaging

Big bag packaged delivery

Storage and Shelf Life

Shelf life of Lyksor® Micro Silica is 12 months when stored in its original package and recommended storage conditions. Lyksor® Micro Silica should be stored in dry conditions. It should be protected from frost. Products that have been subjected to moisture and allowed to dry again might result in inferior performance.

Security and Health

In case of contact with skin, wash with clean water. In case of contact with eye, wash with clean water. Eye contact should be medical consulted immediately. For further information please refer to Material Safety Data Sheet (MSDS).

Legal Liability

The technical recommendations in this product data sheet are based on the experimental studies performed on reference concrete mixtures designed in the R&D laboratories of LYKSOR. The results may not be applicable to different concrete mixtures produced with different materials than the ones used in the experiments in Lyksor. All customers and users are required to determine the appropriate LYKSOR products for their intended use and to test the suitability of LYKSOR product for their application. Please contact LYKSOR for the appropriate product selection and usage details. LYKSOR is not responsible for the improper usage of the products.