

MasterLife MS 610

Densified silica fume for high performance durable concrete and sprayed concrete.

Material description

MasterLife MS 610 is a high quality silica fume powder for high performance concretes. It changes the porous structure of the concrete making it denser and more resistant to any type of external influence.

MasterLife MS 610 meets UNI EN 13263 - 1: 2009.

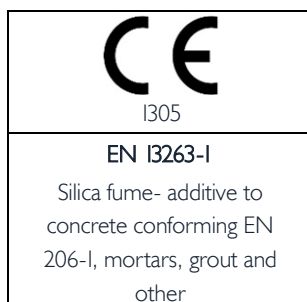
Fields of application

- Wet-mix sprayed concrete applications.
- Cast in-situ concrete.
- High strength concrete.
- Underwater concrete.
- Concrete with low cement content.
- Annulus grouting (TBM).

Features and benefits

- Increased compressive strength at all ages.
- Substantially improved resistance to chemical and mechanical attack, to alkali aggregate reaction and sulphate attack.
- Prevents bleeding and segregation in fresh concrete.
- In sprayed concrete, reduced the accelerator consumption.
- Very thick layers is possible.

In compliance with the European Regulation (EU No 305/2011 and EU No. 574/2014) the product is provided with the CE marking according to UNI EN 934-2 and the relative DoP (Declaration of Performance).



Dosage

The dosage of MasterLife MS 610 varies from 5 to 15% on the weight of the cement, according to the desired performance. In general, since MasterLife MS 610 is advised for the production of high quality concrete, and therefore with cement dosages of at least of 300 kg/m³, the minimum quantity to be used is 10-15 kg per m³ of concrete.

When MasterLife MS 610 is used, the superplasticizer MasterRheobuild, MasterGlenium or MasterEase, MasterCO₂re need to be added in higher dosages than those normally used and must be dosed on cement and MasterLife MS 610 weight.

Other dosages may be used in special cases according to specific job site conditions.

In such cases please consult our Technical Service Department for advice.

Packaging

MasterLife MS 610 is supplied in 20 kg bags and bulk. On request is available in big bags.

Storage

If stored dry and in tightly closed original bags, MasterLife MS 610 has a shelf life of at least 12 months.

Mixing

MasterLife MS 610 is added to the concrete during batching. Minimum mixing time is 90 seconds.

Combination

The use of superplasticizers is strongly recommended for any addition of silica fume in concrete. For frost resistance, an additional air-entraining agent must be added.



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Technical Information	
Form	Powder
Color	Grey
Density	2.1-2.3 kg/l
Bulk density	0.55 - 0.70 kg/l
Chloride content	< 0.1%
SiO ₂ content	94-96%
Essential characteristic in accordance to EN 13263-1	Performance
Silicon Dioxide (SiO ₂)	≥ 85%
Free silicon	≤ 0.4%
Free Calcium Oxide (CaO)	≤ 1.0%
Sulfate content (SO ₃)	≤ 2.0%
Chloride content	≤ 0.3%
Loss of ignition	≤ 4.0%
Specific surface (BET)	15 – 35 m ² /gr
Activity Index	≥ 100%
Dangerous substances	none

Safety instruction

Avoid contact with eyes and prolonged contact with skin. If contact occurs, wash thoroughly with water and seek medical advice.

For further information refer to the product Material Safety Data Sheet.

Other services

For additional technical information, brochures, references, technical reports and technical support please visit www.master-builders-solutions.com/it-it or alternatively contact infomac@masterbuilders.com.

Scan QR code to visit the product page and download the latest version of this technical data sheet and any additional documentation.



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Disclaimer

Since 16/12/1992, Master Builders Solutions Italia Spa has been operating under a Certified Quality System compliant with the UNI EN ISO 9001 Standard. Furthermore, the Environmental Management System is certified according to the UNI EN ISO 14001 Standard and the Safety Management System is certified according to the UNI ISO 45001 Standard.

For further information, please consult the local Technician of Master Builders Solutions. The technical advice on how to use our products, either written or verbally given, are based on the current state of our scientific and practical expertise, and does not imply the assumption of any guarantee and/or responsibility for the final results of works executed using our products.

Therefore, the customer is not exempted from the exclusive task and responsibility of verifying the suitability of our products for the intended use and purposes.

This version supersedes all the previous ones.

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