

MasterGlenium 347

Second generation high range water reducing polycarboxylate ether admixture for ready-mix concrete industry where high slump retention and a low W/C are required.

MATERIAL DESCRIPTION

MasterGlenium 347 is an innovative last generation superplasticizer of polycarboxylic ether (PCE) polymers. MasterGlenium 347 is specially engineered for ready-mix Rheoplastic concrete having fluid consistence and self-compacting concrete, having a very high workability retention, especially under hot weather conditions. The fresh concrete shows no segregation and at the same time has a low water cement ratio and, consequently, high early and long-term strengths as per EN 206-1 and UNI 11104 standards.

MasterGlenium 347 may be used also to produce Rheodynamic concrete, capable of self-compaction, even in the presence of dense reinforcement, without the aid of vibration

BENEFITS

Total Performance Control and the use of MasterGlenium 347 offers the following benefit to the ready-mix concrete producer:

- Reduction the water content with respect to the state-of-the-art polycarboxylate based superplasticisers;
- Production of Rheoplastic and Rheodynamic concrete having a very low W/C ratio;
- Workability retention for a longer period especially in hot weather conditions avoiding the problem of re-tempering with water before the pouring operation;
- Improvement of the rheology even in concrete mixes having a low fines content;
- Optimization of the production of durable concrete as per the EN 206-1 and UNI 11104 standards;
- As compared to the traditional superplasticisers, the engineering properties such as early and ultimate compressive and flexural strengths, bond to steel, and modulus of elasticity, shrinkage, creep, and impermeability are improved.

COMPATIBILITY

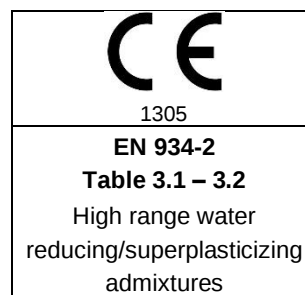
In order to optimise some special properties of the concrete, use of the following complementary admixtures is suggested:

- air entraining agent MasterAir to improve freeze thaw resistance (exposure class XF1 to XF4, EN 206-1);
- High-performance viscosity modifying agent MasterMatrix SDC 150 for Smart Dynamic

Construction concrete;

- silica fume, MasterLife MS 610, for high performance concrete and to improve the durability in chemical aggressive environments (exposure class XA1 to XA3, EN 206-1)
- synthetic micro-fibres MasterFiber 18 to prevent cracks due to plastic shrinkage;
- synthetic macro-fibres MasterFiber 246 SPA as structural reinforcement;
- curing agent MasterKure 127 WB for sealing the surface of freshly finished concrete against rapid evaporation of water which may cause plastic shrinkage cracking.
- demoulding agent MasterFinish for good surface appearance.

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 normal recommended dosage range for MasterGlenium 347 is 0,4 to 1,8 kg per 100 kg of binder. Other dosages may be recommended in special cases according to specific job site conditions.

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

PACKAGING AND STORAGE

MasterGlenium 347 is available in 225 kg (208L) drums and 1075 kg (1.000L) IBC tank.

MasterGlenium 347 must be stored in a place where the temperature does not drop below 5 °C. In case of freezing, warm up and homogenize the admixture solution before using.

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Technical Information	
Form	Light Brown liquid
Relative density (g/cc at 20°C)	1.055 – 1.095
Essential characteristic in accordance to EN 934-2	Performance
Chloride ion content	≤ 0,1% by mass
Alkali content (Na ₂ O equivalent)	≤ 3.5%
Corrosion behavior	Contains component only from EN 934-1: 2008 Annex A.1
Compressive strength	Equal consistence: 24h ≥ 140% 28 days ≥ 115% Equal w/c ratio: 28 days ≥ 90%
Air content	Equal consistence: ≤ 2.0 % Equal w/c ratio: ≤ 2.0 %
Water reduction	≥ 12%
Consistency	Increase: ≥ 120 mm Retention: comply 3.2

DIRECTIONS FOR USE

MasterGlenium 347 is a liquid admixture to be added to the concrete during the mixing process:

- mix cement and secondary binders, sand, coarse aggregates and the mix water until a stiff, yet homogeneous, mixture is obtained;
- optimal mixing water reduction is obtained if MasterGlenium 347 is mixed into the concrete right after the addition of the initial 80-90% of the total water;
- avoid adding the admixture to the dry aggregates;
- add MasterGlenium 347 admixture and mix again for to 60 seconds in order to disperse it homogeneously;
- continue mixing until required workability is obtained, with addition of the remaining water.

COMPATIBILITY

MasterGlenium 347 is not compatible with all admixtures of MasterRheobuild series.

HANDLING AND TRANSPORTATION

No special requirements must be observed during use. Protection gloves and glasses are however recommended. MasterGlenium 347 is non-flammable, non-toxic or irritant and is not subject to special transport requirements.

SAFETY INSTRUCTION

For information on the correct and safe use, transport, storage and disposal of the product, consult the most recent Safety Data Sheet.

OTHER SERVICES

For price analysis, specifications, supplementary brochures, references, reports and technical assistance, visit the website www.master-builders-solutions.com/it-it or contact infomac@mbcc-group.com.

Scan the QR code to visit Master Builders Solutions Italy webpage.



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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.

Master Builders Solutions Italia Spa

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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.