

MasterGlenium 40PAV

High range water reducing admixture for concrete floors. It is suitable for cold weather conditions.

Material description

MasterGlenium 40PAV is a high range water reducing admixture, based on chains of modified polycarboxlic ether, developed specifically for laying concrete floors.

The mechanism of action of MasterGlenium 40PAV is based on the combination of a number of effect; its strong electrostatic and steric dispersion power and its early hydration reaction during the initial stage. MasterGlenium 40PAV is chloride free, meets UNI EN 934-2 and it is compatible with all cements meeting the EN 197-1 standards.

Benefits for Ready-Mix producer

MasterGlenium 40PAV is the answer to the market needs of concrete used in flooring because it combines the requirements of the supplier of ready-mix concrete to those of the contractor. Its special active process enables MasterGlenium 40PAV to produce concrete products featuring the following technical and economic advantages:

- Permits a significant lowering of the water/cement ratio to improve the quality and durability of the concrete.
- Long workability retention in summer climates and fluid consistence for the entire period of time necessary for the transportation and the placing process.
- Fasten the initial hydration of the cement, thus providing higher strength at early ages.
- High workability (slump 210-240 mm) without the risk of segregation.
- Low rate of bleeding.
- Permits a dramatic improvement in the initial and long term mechanical performance of the concrete.

For the contractor

- Reduces the time required for placing, compacting and finishing.
- Eliminates the early "drying-up" of the surface which causes the so-called "wave effect".
- Makes it possible to lay floors that truly meets the expectations of the end user.
- Permits work to be performed while fully respecting current work site regulations (work hours, sound pollution).

- Improves the surface appearance of the floors.
- With MasterGlenium 40PAV it is possible to complete the finishing work on the same day as the casting itself, even during the winter, with significant technical, financial and logistical benefits.

Modular System for flooring

Master Glenium 40 PAV is the basic component of the Modular System for Laying Floors. This system makes it possible to cope with all the problems which may arise in completing industrial flooring through the most suitable combination of different admixtures, each of which is particular for the solution of an individual problem. The Modular System for Laying Floors is an effective tool in the hands of the builder and the ready-mix concrete supplier in order to cope with and provide the best solution to flooring problems with a performance guaranteed to meet the hope of the end user.

Goal	Solutions
Reduction of finishing times Reduction of W/C ratio Better uniformity of the mix High workability retention	MasterGlenium 40PAV
Reduction of plastic shrinkage and cracks	MasterGlenium 40PAV and MasterFiber synthetic micro and macro fibers
Resistance to freeze-thaw cycles	MasterGlenium 40PAV, MasterFiber and MasterAir entraining agent
Resistance to the alkali- aggregate reaction Increase durability	MasterGlenium 40PAV, densified Silica Fume MasterLife MS 610
Compensation for drying shrinkage and curling	MasterGlenium 40PAV, MasterFiber, expansive agent MasterLife SRA 150 and MasterLife SRA 915



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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).



EN 934-2 Table 3.1 – 3.2

High range water reducing/superplasticizing admixtures

Dosage

The dosage rate for MasterGlenium 40PAV varies according to specific job site condition. The recommended dosage range is from 0.8 to 1.2 litres per 100 kg of cement.

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 40PAV is available in 10L cans, 208L drums, 1.000L tanks or in bulk.

MasterGlenium 40PAV must be stored in a place where the temperature does not drop below 5 $^{\circ}$ C. In case of freezing, warm up and homogenise the admixture solution before using.

Technical Information	
Form	Liquid
Relative density (g/cc at 20°C)	1.022 – 1.062
Essential characteristic in accordance to EN 934-2	Performance
Chloride ion content	$\leq 0.1\%$ by mass
Alkali content (Na ₂ O equivalent)	≤ 5.0 %
Corrosion behaviuor	Contains component only from EN 934-1: 2008 Annex A. I
Compressive strength	Equal consistence: $24h \ge 140\% 28 \text{ days} \ge 115\%$ Equal w/c ratio: $28 \text{ days} \ge 90\%$
Air content	Equal consistence: ≤ 2.0 %
	Equal w/c ratio: ≤ 2.0 %
Water reduction	≥ 12%
Consistency	Increase: ≥ 120 mm Retention: comply 3.2



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Directions for use

MasterGlenium 40PAV is a ready-to-use liquid admixture which is added to the concrete together with the other components. The plasticizing effect or the water reduction is higher if the admixture is added to the concrete after 80-90% of the total mix water has been added. This addition of MasterGlenium 40PAV to dry aggregates is to be avoided.

Compatibility

MasterGlenium 40PAV is not compatible with all admixtures of MasterRheobuild series.

Safety information

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

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



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.

Master Builders Solutions Italia Spa

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