

MasterCast 402

New generation of polycarboxylic ether plasticizer especially designed for vibro-compressed and extruded Manufactured Concrete Products.

Material description

MasterCast 402 is an innovative multi-purpose plasticizer based on polycarboxylic ether polymers, specially developed for dry concrete.

At the same time, MasterCast 402 accelerates the strength development, increases the tolerance to changes in moisture content and reduces the cycle time whilst the appearance is maintained or even improved.

Thanks to its unique principle of action on the cement grain, MasterCast 402 fully exploits the hydration potential of cement resulting in higher early strengths and shorter curing time especially during winter temperature conditions.

MasterCast 402 is suitable for Manufacturing Concrete Products, especially for:

- Extruded hollow-core slabs
- Pavers (bottom and mono layer)
- Blocks
- Manholes
- Pipes

MasterCast 402 is chloride free and it is also compatible with all cements meeting the UNI EN 197-1 and ASTM standards.

4 Value

MasterCast 402 is a key component to Master Builders Solutions 4 VALUE concept.

4 VALUE considers the four elements essential for Manufactured Concrete Products:

- Economics
- Performance
- Aesthetics
- Durability

Benefits

MasterCast 402 offers the following benefits for the MCP industry:

- Optimised mix design.
- Increased tolerance to variation of moisture content in the mix and consequently, more homogenous mix properties.

- Enhanced productivity due to shorter cycle time.
- Higher early strength.
- Optimised curing cycles due to shorter curing times.

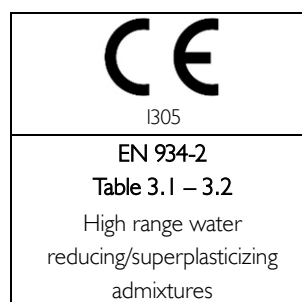
Compatibility

MasterCast 402 is compatible and recommended for use with:

- MasterFinish MPT 299, cleaning and protection agent.

MasterCast 402 is not compatible with all admixtures of MasterRheobuild and MasterGlenium series.

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 normally recommended dosage rate for MasterCast 402 is 0.4 to 1.0 litres per 100 kg of cement.

Other dosages may be used in special cases according to specific job site conditions. In this case please consult our Technical Services Department.

Directions for use

MasterCast 402 is a liquid ready-to-use admixture to be added to the concrete during the mixing process.

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Technical Information	
Form	Liquid
Relative density (g/ml at 20°C)	1.020 – 1.060
Essential characteristic in accordance to EN 934-2	Performance
Chloride ion content	≤ 0.1% by mass
Alkali content (Na ₂ O equivalent)	≤ 2.5%
Corrosion behaviour	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

Packaging and storage

MasterCast 402 is available in 208L drums, 1.000L tanks and in bulk. Samples are available in 10L cans.

MasterCast 402 must be stored in a place where the temperature does not drop below 5°C. If stored in unopened containers according to manufacturer's instructions, the shelf life is 9 months.

Handling and transportation

No special requirements must be observed while the product is used. Protection gloves and glasses are recommended. Do not eat, drink or smoke during the application. MasterCast 402 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 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.

Master Builders Solutions Italia Spa

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