

# MasterFinish RL 510

Readily biodegradable release agent emulsion based on vegetable oils providing exceptional rust protection.

## Material description

MasterFinish RL 510 is an oil/water emulsion. In contrast to conventional products, the ingredients ensure good working hygiene. As a very efficient release agent, it ensures excellent demoulding even with complicated formwork. The separating film that forms on the formwork after breaking the emulsion is highly effective, rain-resistant and rust-protective.

MasterFinish RL 510 is suitable for use on all conventional formwork types such as steel, plastic, wood and resin-coated formwork. However, if rubber-lined, silicone or polyurethane moulds are used a test of compatibility is mandatory. The suitability for paints and foams such as polystyrene must be checked in advance. If applied in the correct thin layer, the adhesion of subsequent coatings (e.g. plasters, paints) is not affected.

The product has low drainage inclination with vertical formwork.

It can be used in MCP, precast and in-situ concrete. When used for in-situ concrete construction, it must be ensured that the formwork panels are protected from weathering until the emulsion breaks.



Assiad classification of form release agent		
Flammability		**
Utilization	Hygiene	*****
	COV	***
	Biodegradability	***
* Favorable criterion		* Unfavorable criterion

## Features and benefits

- COV free.
- biodegradable > 60% at 28 days following EN ISO 9408-OCDE 301 B.
- Enhances the surface appearance of concrete structures.
- Ready to use, it can be easily spread or applied with a brush or a roller.
- Produces unstained formed concrete surfaces, including these incorporating white cement.
- Minimises or eliminates surface voids caused by entrapped air and water (bug holes).
- Extremely efficient release mechanism permits match casting of intricate detail.
- It can be used with all types of concrete, precast or cast in place.
- Can be applied on all the most common types of concrete forms such as wood, metal, polyester or plywood.
- Significantly reduces form cleaning and extends form life.
- Applicable in one layer, ensuring a uniform and homogeneous distribution on the surface to be treated, reducing application time-costs.
- Normal or delayed stripping are allowed.

## Dosage

The recommended coverage rate for MasterFinish RL 510 form release agent depends the application technique, and on form liner's texture and its absorptive. When sprayed and uniformly distributed, at a constant pressure of 6 atm, on metallic or on smooth, non-absorptive surfaces. If applied uniformly on metallic or on impervious material the coverage rate is 70 - 90 m<sup>2</sup>/liter, resp. 12 - 14 ml/m<sup>2</sup>.

MasterFinish RL 510 can be applied also by brush; in this case the coverage rate is 40 - 60 m<sup>2</sup>/liter.

## Packaging

MasterFinish RL 510 form release agent is supplied in 10L cans, 208L drums and 1.000L tanks.



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## Storage

MasterFinish RL 510 must be stored protected from frost and direct sunlight in closed original containers for at least 9 months. If this period is exceeded, the remaining quantities should be stirred well. In order to keep the evaporation of the water contained as low as possible and to avoid contamination of the emulsion by dust, the screw connections of the sample container should be loosened loosely, but not removed.

## Directions for use

MasterFinish RL 510 form release agent is specifically developed to work at the form surface and cement paste interface. The performance of this product will be significantly hindered by oil contaminants and cement paste build-up. Forms, having residue such as this, can be wire brushed and

wiped with solvent and, then, a dry rag. Once thoroughly cleaned, forms will be maintained in this condition through the use of MasterFinish RL 510 and will also produce more visually appealing products as a result. MasterFinish RL 510 form release agent is compatible with most forms and form liners with the exception of those made of styrene or latex.

## Safety Issue

- Easily biodegradable, non irritant, non flammable and non combustible, non subjected to regulation prescribed for mineral oil based form release agents.
- Virtually odour free; emits no harmful vapours.
- Produces up to 80% lower formation of aerosols than traditional oil-based release agents.
- Significantly reduces the risk of dermatitis.

Technical Information	
Appearance	White milky emulsion
Relative density (g/ml at 20°C)	0.95 - 0.97

## Application

MasterFinish RL 510 is a ready-to-use product that can be applied particularly by a sprayer. Application by brush or roller is not recommended. The spray application should be carried out carefully in order to achieve a satisfactory coverage. The spraying should be done at a suitable distance from the mould (approx. 50 - 100 cm) so that the release agent is evenly distributed in a uniform film thickness.

During spraying, it is critical that the spraying pressure is adequately high (3 - 5 bars) and that the gun, especially the nozzle is completely tight in order to avoid dripping.

When spraying with a portable handgun, a stainless-steel flat cone nozzle with a spraying angle from 65° to 80° has been found to give the best results.

The spraying devices or systems to be used must be free of any release agent residues. The release agent must not be mixed with other products or water!

After application on the formwork MasterFinish RL 510 requires a flash-off time of approx. 15 minutes depending on the ambient temperature. Then the concrete can be placed. MasterFinish RL 510 is suitable for all types of compaction and concrete grades. If shaking technology is used, the factory specifications of shaking time, shaking frequency and the consistency of the concrete should be observed. Concreting should be carried out without interruption or longer breaks. Additional shaking can lead to problems.

## Compatibility

MasterFinish RL 510 should never be mixed with other form release agents. When used as a demoulding agent on particular forms made of rubber or other resinous materials, it is recommended to perform a test application and to contact our Technical Service Department.



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## Safety instruction

For high pressure spraying application the use of protective means (like gloves, glasses and mask) is very recommended. If applied on steel forms at low temperatures (lower than 10°C) it is advisable to wait at least 30 minutes prior to cast concrete. MasterFinish RL 510 form release agent is compatible with the full line of Master Builders Solution admixtures to fill all application needs.

## Handling and transportation

No special requirements must be observed during use. Protection gloves and glasses are however recommended. Do not eat, drink or smoke during the application. Remove contaminated clothing immediately. Wash wetted skin with soap and water. Please refer to the current safety data sheet for further information.

MasterFinish RL 510 is non-flammable, non-toxic or irritant and is not subject to special transport requirements.

## Other services

For additional technical information, brochures, references, technical reports and technical support please visit [www.master-builders-solutions.com/it-it](http://www.master-builders-solutions.com/it-it) or alternatively contact [infomac@masterbuilders.com](mailto: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.



## 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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