

Cuore MD ECO SL 4000

Composition	Cuore MD Eco SL 4000 is a self-levelling industrial floor. Hardens fast and tension-relieved with a layer thickness of 2-50 mm.	
Strength class	CT-C40-F10 according to DIN EN 13813	
Abrasion resistance (Böhme)	A9	
Processing time at 20°C	Approx. 35 min.	
Processing temperature	Min. +2°C, max. +35°C	
Application thickness	2-50mm	
Mixing ratio	4.5 l water per 25kg powder	
Strength	Compressive strength	>40N / mm ²
	Flexural strength	>12N / mm ²
Slip resistance/displacement space	Without quartz sand	R10
	With quartz sand	R13 / V8
Consumption	Approx..1.8kg /m ² and mm layer thickness	
Loadability	Curing at 20°C	
	Walkable/ready for covering: after 4 hours	
	Light load:	1 day
	Fully loadable:	4 days
	Fully loadable in exterior areas:	7 days
Density	Bulk density:	approx..1.1kg/dm ³
	Fresh mortar density:	approx..2.0 kg/dm ³
Properties	• Eco Binder technology • Environmentally friendly • Mineral • Very low emission EC1 plus • Fast curing and tension – relieved • Waterproof up to 1.5 bar • Fulfills the requirements for conductivity according to DIN EN 61340-5-1	

Range of usage

- High flowability
- High abrasion resistance
- Easy application
- Also processible by machine
- For indoor and outdoor use
- For revision of concrete and screed
- As coating for areas with high mechanical load like garages, warehouses and production areas
- Walkable after 4 hours
- Applicable in layer thicknesses of 2-50mm, for larger areas a layer thickness of approx. 3-5mm is recommended

Substrates

- Concrete
- Cement and calcium sulfate-based screed, heated and non heated
- Self-levelling compounds, floor filling compounds
- Dry screed
- Adhering ceramic coverings

Preparation of substrate

Prior to coating, ensure that the surface is stable and has sufficient surface tensile strength. The surface should also be ready for coating, dry or matt damp, clean and free of all kinds of debris. Mechanical surface preparation e.g. shot-blasting is recommended. Due to roughening the surface, the adhesion for the subsequent layer can be improved. Deeper ruptures must be filled in an appropriate manner. The surface should be permanently vibration free and crack free. Therefore, new concrete or screed should have a minimum age of 28 days. Already existing cracks must be repaired professionally. The adhesive strength of the substrate must be at least 1.5 N/mm². By priming the surface, the absorbency of the substrate is adjusted. This avoids the rising of air bubbles during the subsequent coating. In order to guarantee this on critical undergrounds, a test area of 1m² should be created. When applying an epoxy primer (**EP 1300/ EP 1900**), it should always be sanded with fire-dried quartz sand. The edge joint must be prepared with a suitable expansion strip. Thereby attention must be paid to a clean adhesion to avoid material flowing below or behind the expansion strip. Expansion joints must be adopted. After finishing all coating works, all joints have to be filled with a permanently elastic compound. Transitions and closing edges should be protected against overflow by installing end rails. For coatings on tiled floors the surface has to be pre-levelled with **MD Eco SL 4000**. For this purpose, **MD Eco SL 4000** is applied by a toothed spatula or a screed rake. The layer thickness above the tile surface should be at least 1mm. The joint profile has to be fully covered. After curing time of approx. 6 hours, the surface can be primed with **Cuore MD WP 1100**. The application of the primer with all respective waiting times has to be handled according to the normal substrate

preparation. Due to the application on tiled floors, attention should be paid to a crack free underground. Loose tiles and tiles over cavities must be removed. For simultaneous work on various substrates with changing absorbencies, the surface has to be pre-levelled to maintain a uniform coloring of the mortar. For this purpose, **MD Eco SL 4000** is applied by a toothed spatula or a screed rake on the primed surface. The layer thickness should be 1mm above floor level. All further procedures for application of the actual coating are done according to the coating of tiled floors.

Mixing and application

Manual mixing

Mix the material by using a mixing machine. First, add 4.5 liters of water per 25kg powder material into the mixing container. Then, pour **MD Eco SL 4000** inside while stirring. For applications on slopes, the water amount can be reduced to 4.25 liters. For manual applications use of a hand-held mixer and a mixing paddle are recommended. By using the respective mixing paddle, a proper thread adapter must be used. The material has to be mixed intensely for 2 minutes, left to set for 2 minutes, and then mixed again for 1 more minute. Single mixing batches must be mixed fast and uniform. The material has to be poured out seamlessly within the workability time. With manual processing an aeration time of up to 5 minutes has to be maintained between the end of the mixing time and application of the material. This minimizes rising of air bubbles within the poured material. After mixing, apply **MD Eco SL 4000** onto the primed surface and distribute it with a pin leveler to the intended thickness. In order to avoid processing marks in the fresh surface, do not use a conventional trowel. For optimal levelling of the fresh mortar and to maintain the flatness tolerances according to DIN 18202, it is recommended to use a layer thickness of approx. 3-5 mm for larger areas. Thereby the required layer thickness depends on the surface quality of the substrate which has to be coated. Use a thin spiked roller on the freshly laid mortar for better adhesion and texture. Consider the spikes to be long enough. Alternatively, use a surface scraper to smoothen the surface. The coating has to be protected from too quick drying (solar radiation, draft), frost and rain for the first 24 hours. Do not cover the finished surface with foils or other materials.

Application on larger areas

It is recommended to use bigger mixing devices or mixing pumps for larger areas:

- >50m²: mobile mixing station
- >300m²: continuous mixing pump or comparable mixing system

For more information about listed machines and the respective application, please refer to the current installation manual for industrial floors.

Tools and cleaning

Hand held mixer or mixing device, stirrer, trowel, pin leveler, surface scraper, spiked roller and spiked shoes. All equipment should be washed clean and dried before and after application.

Post-processing and coating protection

To achieve a higher abrasion resistance or chemical resistance we recommend a combined application of **MD Eco SD 1000** and **MD Eco**

SI 1000. For a complete sealing we recommend the use of **MD Eco SS 1000**. Please refer to the respective data sheets for more information.

Shelf life and packaging

25kg paper bag.

Original packaging is storable for 12 months in dry and controlled temperate areas (not below 0°C, recommended 10-25°C). Reseal opened containers immediately and use within a very short time.

Safety notes

There is no mandatory hazard labelling for **MD Eco SL 4000**. Avoid inhaling dust when opening packaging. Protect skin and eyes during the mixing process.

Please refer to the Material Safety Data Sheet which can be requested on Cuore website for further information on safety during transportation, storage, handling and disposal. Follow the instructions on the packaging.

Notes

The application has to be protected from drying too quickly (due to drafts or intense heat from the sun) for at least 24 hours. Some minor colour differences are inevitable due to different production batches. This should be taken into account while performing work. It is necessary to work on designated sections with the same batch (see label) if a uniform colour is desired. Due to different water addition during application or changing working techniques, light colour shades in the coating surface can occur. Please take note that this coating is a mineral product. Product colours are not fully conformed to the RAL Map and therefore they should only be seen as estimated classifications.

EN 13813

EN 13813 CT-C40-F10-A9

Self-levelling industrial floor. Hardens fast and tension-relieved with a layer thickness of 2 – 50 mm.

Fire behaviour	A1
Compressive strength	C40
Flexural strength	F10
Release of corrosive substances	CT