

TECHNICAL DATA SHEET

ECO RAPID

Industrial Floor System. A division of ETS Europe.



Silicate Systems

Date: 16/07/2017
Revision: 13/06/2023
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PRODUCT INFORMATION

DESCRIPTION:

ECO RAPID is an innovative and eco-friendly self-levelling industrial floor. Hardens fast and tension-relieved with a layer thickness of 2 – 50 mm.

COLOR:

The original color of **ECO RAPID** is grey.



PROPERTIES AND BENEFITS

- High mechanical load
- Good chemical & saltwater resistance
- Fast curing, crack & shrinkage free
- Made with alternative materials that have a low CO₂ footprint.
- Non-hazardous material with no allergy potential
- Fulfills the requirements for discharge capability according to DIN EN 61340-5-1
- Waterproof up to 1.5 bar.
- Very low emission EMICODE EC 1^{PLUS}
- Odorless
- Walkable after 4 hours & fully loadable after 4 days
- Very high adhesion, compressive & tensile strength
- Also process able by machine

RANGE OF USAGE

ECO RAPID is ideal for all concrete and cement based indoor areas. Outdoor use is also possible. It is suitable for locations with high mechanical, chemical loads and high abrasion such as industrial floorings, warehouses, production areas, garages and hospitals. Smooth layers between 2 – 50 mm, a layer thickness of approx. 3 – 5 mm is recommended.

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TECHNICAL INFORMATION

Strength class	CT-C50-F10 according to DIN EN 13813	Mixing ratio	4.5 L water per 25 kg powder
Abrasion resistance according to Böhme	A9	Strength Compressive strength Flexural strength	approx. 50 N/mm ² approx. 10 N/mm ²
Processing time at 20°C Processing temperature	approx. 35 min Min. +2 °C, max. +35 °C	Slip resistance Without quartz sand With quartz sand	R 10 R 13 / V8
Application thickness	2 - 50 mm	Consumption	approx. 1.8 kg / m ² and mm layer thickness
Loadability Walkable Light load Fully loadable Fully loadable in exterior areas	Curing at 20°C after 4 hours 1 day 4 days 7 days	Density Bulk density Fresh mortar density	 approx. 1.2 kg/dm ³ approx. 2.0 kg/dm ³

The information above is given based on our experiences. Adjustment may be required in case of object specific fluctuations.

PREPARATION OF SUBSTRATE

Prior to coating process, ensure that the surface is dry and clean and free from all kinds of separating agents. Mechanical surface preparation for example shot-blasting is recommended. Deeper ruptures must be filled with **ECO REPAIR**. The surface should be permanently vibration-free and crack-free. Already existing cracks must be repaired professionally. The pull of test should be min. 1.5 N/mm². For priming the concrete surface must be dry. The substrate must be dried for 2 hours after priming with **ECO PRIMER**. 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 1 m² should be created. Apply a further layer of primer if necessary. The coating work on primer must be finished within 6 hours.

For simultaneous work on different substrate apply first a 1 mm layer this is to avoid too much different coloring and absorbencies and wait 6 hours before priming again.

Before the second layer please prime again to avoid bubbles, expansion joints are to take over. Prepare ceilings, walls, windows and doors suitable for the decorative fresh mortar surface and protect it from dust and insects.

MIXING AND APPLICATION

First, add 4.5 liters of water per 25 kg powder material into the mixing container. Then, pour powder inside while stirring. For manual applications use a suitable handheld mixer. We recommend using the mixing paddle COLLOMIX DLX 152 HF. 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.

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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. The use of a continuous mixing pump or a semi-automatic charge mixer is required for large areas. Mixing time for the semi-automatic charge mixer is approximately 4 to 6 minutes per 100 kg powder.

After mixing, apply **ECO RAPID** 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 use a surface scraper to smoothen the surface. Use a thin spiked roller on the freshly laid mortar for better levelling and deaeration. Consider the spikes to be long enough.

For optimal leveling of the fresh mortar and to maintain the flatness tolerances according to NBN ISO 7976-1 it is recommended to use a layer thickness of approximately 3 – 5 mm for larger areas. Thereby the required layer thickness depends on the surface quality of the substrate which has to be coated. The coating has to be protected from too quick drying (solar radiation, draft), frost and rain for the 1st 24 hours. Do not cover the finished surface with foils or other materials.

Use disposable overshoes to protect the surface until sealed against dirt and moisture.

Note concerning post-processing and coating protection: To achieve a higher abrasion resistance or chemical resistance we recommend a combined application of **ECO HYDRO SIL** and **ECO HYDRO GLASS** or **ECO TOPCOAT MAT**. Please refer to the respective data sheets for more information.

TOOLS AND CLEANING

Mixing device (drill mixer or pump), trowel, spiked shoes, spiked roller and screed rake or pin leveler. All equipment should be washed clean and dried before and after application.

PACKAGING AND STORAGE

Packaging: 25 kg bag

Storage: 12 months in original packaging and in a dry, moisture-free environment.

SAFETY, ECOLOGY AND ELIMINATION

There is no mandatory hazard labeling for **ECO RAPID**. Avoid inhaling dust when opening packaging. Protect skin and eyes during the mixing process. Please refer to the Material Safety Data Sheet (MSDS) which can be requested on www.ets-europe.be for further information on safety during transportation, storage, handling and disposal. Follow instructions on the packaging.

NOTES

Some minor color 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 color is desired. Due to different water addition during application or changing working techniques light

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color shades in the coating surface can occur. Please take note that this coating is a mineral/inorganic product. Avoid inhaling dust when opening packaging. Protect skin and eyes during the mixing process. Please refer to the Material Safety Data Sheet (MSDS) for further information on safety during transportation, storage, handling and disposal. Follow instructions on the packaging.

The content of this technical data sheet corresponds to the latest development and our applications experience. All information is based on ideal conditions and therefore does not apply for every application purpose. Due to different materials, substrates and different actual site conditions no warranty is given for the customer's application. In particular, we assume no liability based on this information or any verbal statements. The only exception is when we can be blamed for the case of intent or gross negligence. In that case the customer has to prove that he has transmitted all required information completely and in a timely manner for a proper and promising evaluation by ETS Europe. Any further details regarding the application of our products have to be confirmed in writing by ETS Europe. The customer must test the product's suitability for the intended application and purpose. We reserve the right to change the product specifications due to the ongoing development. Apart from that our general terms and conditions are valid. This data sheet supersedes all earlier technical data on this product. The technical data sheet can be requested on www.ets-europe.be.



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No. ECO RAPID

EN 13813

EN 13813 CT-C50-F10-A9

Innovative and eco-friendly self-levelling industrial floor. Hardens fast and tension-relieved with a layer thickness of 2 - 50 mm.

Fire behavior	A1
Compressive strength	C50
Flexural strength	F10
Release of corrosive substances	CT

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