ECO REPAIR

Shrinkage-free fast-setting pouring mortar

≥ 50 N/mm²	Class B	1.5 bar	30 min
COMPRESSIVE STRENGTH, 28 DAYS	EARLY STRENGTH, ≥ 25 N/MM²	WATERPROOF TO	LOADABLE

PROPERTIES AND BENEFITS

- Eco-Binder technology
- Mineral
- Low in chromate per TRGS 613
- Highly resistant to mechanical stress
- Early loadable, high final strength
- Easy application
- Environmentally friendly
- Very low emission EMICODE EC1 PLUS
- Fast curing and tension-relieved
- Waterproof up to 1.5 bar
- Good flowability
- Also processible by machine

DESCRIPTION

Eco Repair is a shrinkage-free, fast-setting mortar for construction. Hardens fast with high early strength.

RANGE OF USAGE

For indoor and outdoor use: repairs on mineral surfaces in dry, damp and permanently wet conditions; under-filling and encapsulation of bolts, foundations for machinery, crane rails, pillars and other steel constructions; filling of construction joints between precast slabs, basement ceiling tiles and soles; repairs on defects in concrete, screed, masonry, natural and artificial stone; force-locked crack repair; installation and repair of manhole rings; quick installation of small point foundations; and work under time constraint.

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Technical information

STRENGTH DEVELOPMENT

Early strength class	Class B, ≥ 25 N/mm²
Compressive strength, 1 day	≥ 30 N/mm²
Compressive strength, 7 days	≥ 35 N/mm²
Compressive strength, 28 days	≥ 50 N/mm²
Flexural strength, 1 day	≥ 4.5 N/mm²
Flexural strength, 7 days	≥ 9.5 N/mm²
Flexural strength, 28 days	≥ 13 N/mm²

MIXING AND PROCESSING

Mixing ratio	max. 4.5–5.5 L water / 25 kg powder
Grain size	0–0.5 mm
Processing temperature	min. +2 °C, max. +35 °C
Processing time at 20 °C	approx. 10 min
Consumption	approx. 2.0 kg per litre cavity
Loadable	after 30 min

DENSITY

Bulk density	approx. 1.3 kg/dm³
Fresh mortar density	approx. 2.0 kg/dm³

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

PREPARATION OF SUBSTRATE

Cavities and ruptures: the surface must be stable with sufficient tensile strength, ready for coating and dry or matt damp. Cavities, joint and crack edges must be free of dust, cement, gypsum, bulk or clinging dirt and free of oil and grease. Adhesive strength of the substrate must be at least 1.5 N/mm². Pre-wet the substrate until matt damp, avoiding puddles; use Eco Primer on highly absorbent substrates, observing its drying times.

Force-locked crack repair: ensure the crack width is stable before application. Open the crack with a standard angle grinder or suitable milling machine to at least 3 mm width, observing cutting depth carefully on floating or heated screed constructions to avoid damaging insulation panels or underfloor heating pipes. Apply vertical cuts at right angles to the opened cracks, at 15–30 cm intervals. Vacuum all prepared cracks and slits to remove dust and mortar residues, then pre-wet cutting edges and surrounding surface as described above; prime with Eco Primer on highly absorbent substrates.

ECO REPAIR

Mixing and application

CAVITIES AND RUPTURES

Add 4.5–5.5 L water per 25 kg powder into the mixing container, then pour the powder in while stirring, using a suitable handheld mixer. Mix intensely for 2 minutes, remove any adhering powder residues, then mix again until uniform and lump-free. Pour into prepared cavities or ruptures without interruption and spread evenly; a damp sponge can smooth the edges after the processing time for a uniform transition. Any shuttering formwork should be airtight and non-absorbent.

For deeper ruptures, mix 12.5 kg Eco Repair with 2.5–2.75 L water per the standard procedure, then mix in 12.5 kg of coarse quartz sand (grain size 1–4 mm) while stirring, for a total mixing time of about 2 minutes.

FORCE-LOCKED CRACK REPAIR (CRACK WIDTH AT LEAST 3 MM)

Mix with 5.5 L water per 25 kg powder per the standard procedure. Pour into the prepared slits within the workability time, filling all cuts to the top edge of the floor, and smooth the surface with a trowel or spatula to distribute excess material evenly.

Fresh surfaces from either application can be re-coated after 30–60 minutes at 20 °C; waiting time may vary with ambient temperature and relative humidity.

TOOLS AND CLEANING

Mixing device, trowel, spatula, sponge. All equipment should be washed clean and dried before and after application.

ECO REPAIR

Notes and safety

PACKAGING AND STORAGE

Packaging	25 kg bag
Storage	12 months

Store in original packaging, in a dry, moisture-free environment.

SAFETY, ECOLOGY AND ELIMINATION

Avoid inhaling dust when opening packaging — Eco Repair contains cement and reacts alkaline with moisture/water. Protect skin and eyes during mixing. Refer to the Material Safety Data Sheet (MSDS), available on request, for further information on safety during transportation, storage, handling and disposal. Follow instructions on the packaging.

AVAILABLE ON REQUEST

Material Safety Data Sheet (MSDS).

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.