

Technical sheet

EP-Rapid Primer

A fast-curing 2-component epoxy hybrid primer

Application area

- Sanded tiles
- Screed
- (Polished) concrete
- Existing poured floor
- Existing broadcast floor
- Concrete with floor paint
- Turbodec floor

Contact Sidec for application on other types of substrates.



Properties

EP-Rapid Primer is a fast-curing, low-viscosity, non-pigmented, 2-component epoxy hybrid primer.

- Fast curing with sufficient processing time
- Optimal viscosity
- Broadly applicable

Technical data

Mixing ratio	100 A / 62 B
Pot-life A+B	5 - 7 min*
Processing time once on the floor	10 min*
Temperature range	0°C - 25°C
Optimal conditions	18°C - 22°C, 40% - 60% RH
Colour	Yellow
Viscosity A + B	+/- 580 mPas (Anton Paar MCR 92 Shear Rate 100 1/s, 20°C)
Solid content	100 vol.% (= 100 wt.%)
Density A + B	+/- 1.11 g/ml (20°C)
Adhesion strength on concrete	Greater than the tensile strength of concrete (greater than 3 MPa)

* At a temperature of 22°C, 55% RH

Drying time vs. floor temperature

Pay extra attention to the dew point at lower floor temperatures as drying times will be significantly longer.

Floor temperature (°C) at 55% RH	Drying time
10	> 4h
15	3h
20	2h
25	1h30

EP-Rapid Primer consumption

Substrate	Consumption (g/m ²)
Tiles	250 - 350
New screed	300 - 350
(Polished) concrete	200 - 300
Poured/broadcast floor	200 - 300
Turbodec floor	200 - 300

Broadcast gravel consumption H0.4/0.8

Broadcast the area according to the guidelines on the system sheet of the respective flooring system.

Preparation and substrate check

Before applying EP-Rapid Primer, an inspection of the substrate is necessary. The substrate must have a minimum compressive strength of 25 N/mm² and a minimum tensile strength of 2 N/mm².

The substrate must always be moisture and grease-free. Use a moisture meter to measure the floor's moisture content. The moisture content in the substrate must be ≤ 5%. If it's more than 5% but less than 10%, you can opt to dry the floor as much as possible with a burner. After treating the floor, a new measurement can be taken 15 minutes after stopping the burning. If the moisture percentage has not decreased, there may be an underlying moisture problem. If this is the case, the underlying issue must be resolved before applying EP-Rapid Primer. Clean the floor with a degreaser and then with clean water before proceeding to blast or sand. This action is best performed the evening before installation.

After degreasing, the substrate must always be mechanically pre-treated. This is preferably done by blasting the substrate. If the installation conditions do not allow for this, the substrate can also be sanded with a double-ring diamond disc. The entire substrate must be homogeneously sanded. Any remnants of old coatings and adhesives must be completely blasted/sanded away. All substrates must first be made grease and dust-free before roughening can commence.

Here are some points of attention for each substrate:

- Tiles: the joints must not contain any dirt, grease or other chemicals. Tiles must be blasted so that the ceramic or glaze layer is completely removed. Not fully sanding tiles carries a risk of detachment. Loose or hollow-sounding tiles must be removed.
- Screed: new screed must first cure for at least 28 days. It does not need to be sanded. Given that screed is a very absorbent substrate, an extra layer of primer may need to be applied if it is observed that it completely absorbs into the substrate.
- Concrete: new concrete must cure for at least 28 days. Any existing protective layer, impregnation agent or paint layer on existing concrete must first be sanded away. For polished concrete, it is very important to sand away the curing compounds on the surface. If the concrete is not polished, a cement layer can form on the surface. This layer must also be sanded away.
- Anhydrite: degrease, then sand and make dust-free with a vacuum cleaner.

Unevenness in the substrate can be levelled with an appropriate levelling compound (such as EP-Rapid Plinth / Repair Gel). It is also possible to do this with the primer itself by making a mixture of 15-20% primer and 80-85% gravel (Grain size: 0.4-0.8 mm). Always apply the mixture with a trowel and ensure that the gravel mixture is subsequently saturated with enough primer.

In the case of cracks wider than 1 mm, these must first be further cut open and then filled with an appropriate crack-bridging material (such as EP-Rapid Plinth / Repair Gel). After curing, sand the repaired areas with a double-ring diamond disc.

Expansion joints in the substrate should also be followed when applying EP-Rapid Primer.

Pre-cut drainage holes on the side (1-3 cm) in advance so that the primer can run into them. Always tape these off before applying EP-Rapid Primer and remove the tape immediately after application.

Conditions during application

The recommended floor and ambient temperatures range between 10°C and 25°C, with an ideal application temperature of 18 to 22°C. To shorten the drying time of the primer at a construction site with a low floor temperature (<15°C), the room can be preheated to 20-22°C the day before. Application at lower temperatures (down to 0°C) is possible, but the drying time will be significantly longer. The maximum air humidity is 80% RH. The temperature of the substrate and the uncured products must be 3°C above the dew point. When applying at temperatures lower than 10°C, it is very important to monitor this parameter as there is a high risk of condensation at these low temperatures. Condensation on the surface must be avoided at all times.

Processing

- Measure out an amount of EP-Rapid Primer that can be processed within a 10-minute timeframe.
- Stir the A component before weighing.
- Weigh the B component according to the mixing ratio and add it to the A component. Mix for 1 minute in the tin.
- Pour part of the tin into a small pot and start spreading the primer along the edge or plinths. Use a brush or small roller.
- Then quickly pour the rest of the tin in several small puddles or in a long straight line over the floor. Spread the primer evenly over the area with a roller (Epoxy roller/polyamide roller). After 5-7 minutes in the tin, the mixture is no longer workable.
- Once the primer is fully spread, it can be broadcast. Walk over the floor with spiked shoes and broadcast the area according to the guidelines on the system sheet of the respective flooring system.

Points of attention

- Avoid thick layers of primer (>400g/m²) as they cure slower than thin layers. Very thick layers (>5mm thick) will cure quickly due to the significant heat generated during the reaction. In this case, the heat development can cause considerable shrinkage, which can be detrimental to adhesion.
- If fish eyes are formed during the application of the primer, stop immediately. The floor is too greasy, and full adhesion will not occur. Clean and degrease the floor first and then blast again to achieve a rough surface.
- On a tiled floor, it is best to apply the primer layer a bit thicker (300 g/m²) to ensure the joints are well saturated with primer. If, after applying the primer, you notice that it has been absorbed into the joints (absorbent joint), then priming needs to be done again.
- If you walk over the primer with spiked shoes and sink in or make scratches visible to the substrate, then it is not dry, and you should wait before applying the next layer. When a knife can no longer make a scratch in the primer, and it cannot be pushed away, then the next layer can be applied.
- Pay extra attention to areas near doors and walls of refrigerators and freezers during sanding. This is where condensation can occur, preventing the primer from adhering. If there is no adhesion of the primer, consider resanding these areas and making several cuts to then re-prime. This allows the primer to anchor better.
- Immediately place any leftover mixed primer outside after use. Temperatures can rise high in the pot (up to 200°C with a lot of leftovers), and smoke can develop.
- Always use masking tape where necessary during the application of EP-Rapid Primer. Remove it immediately after applying EP-Rapid Primer, before broadcasting the primer layer.

Packaging

EP-Rapid Primer	Sets of 10 kg	Metal can
Broadcast gravel	25 kg	Bag

Cleaning

Clean the used tools with Cleaner EP, isopropanol or acetone. Cured product residues must be removed mechanically.

Storage and preservation

Shelf life: 12 months in closed and original packaging when stored in a cool and dry place (10-25°C).

Safety measures

Read the safety sheets carefully before using EP-Rapid Primer. Always wear personal protective equipment according to the applicable local guidelines and legislation. Gloves and safety glasses are mandatory.

Technical support

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The latest version of this technical data sheet is available on our website.

