N-200

Two-component, solvent-free, moisture-tolerant epoxy primer based on epoxy resin

Description

Hammerfast N-200 is a high moisture-tolerant, two-component, solvent-free, low-viscosity epoxy resin-based primer system with a specially formulated composition. It limits capillary moisture transmission in concrete substrates and can be safely applied in environments with up to 80% relative humidity.

It can be applied onto damp and newly cast (green) concrete surfaces, providing strong adhesion and acting as an effective moisture barrier for subsequent epoxy and polyurethane coatings. It blocks existing moisture and prevents future moisture ingress.

Advantages

- Applicable up to 80% relative humidity,
- Limits capillary moisture transmission in concrete,
- High moisture tolerance (acts as a moisture barrier),
- Prevents capillary moisture movement,
- Can cure on damp and wet substrates; blocks existing and future moisture,
- Low viscosity: penetrates into pores, ensuring deep adhesion; self-leveling properties,
- Solvent-free with low VOC content,
- Can be mixed with quartz sand to produce repair, filling, and leveling mortars,
- Excellent adhesion to metal surfaces such as steel and iron,
- Provides a strong bonding layer for subsequent coatings,
- Excellent adhesion strength (cohesive failure from concrete),
- High mechanical and chemical resistance,
- Easy application by roller, brush, or trowel.

Areas of Use

Hammerfast N-200 is used:

- In environments with high relative humidity,
- On newly cast (early-age) concrete,
- As a moisture barrier and primer for industrial floor coatings such as epoxy, polyurethane, and self-leveling systems,
- As a concrete strengthening primer on weak substrates,
- As an anti-corrosion primer in the construction industry,
- In warehouses, production areas, parking garages, and logistics areas,
- On interior floors such as hospitals, schools, and offices,
- As an adhesion-promoting primer on absorbent mineral substrates,
- To create a mechanical bonding bridge with quartz sand broadcasting,
- As a dust-proofing treatment.

Surface Preparation

- The substrate must be sound, clean, and load-bearing.
- Oil, grease, curing compounds, paint, and weak layers must be completely removed.
- Surface should preferably be roughened by mechanical methods (shot blasting, milling).
- A rough surface profile (CSP 2–4) is recommended, achieved by sanding, shot blasting, or milling. Dust must be removed using industrial vacuum cleaners.
- No standing water should be present. The surface may be damp but must be free of puddles.

Mixing Procedure

- Component A should be mixed with a low-speed mixer (300–400 rpm) for 1 minute.
- Add the entire Component B into Component A (scraping edges and corners thoroughly) and mix for an additional 3 minutes.
- Avoid air entrapment during mixing; keep the mixer close and perpendicular to the surface and avoid excessive mixing time.
- Higher temperatures shorten pot life, while lower temperatures extend it.
- For epoxy mortar preparation, quartz sand is added immediately at approximately 1:10 (resin:sand) ratio and mixed until a homogeneous mixture is obtained.

Application

Hammerfast N-200 can be used both as a primer and an adhesion promoter.

<u>As a Primer:</u>

Apply in one or two coats to saturate the substrate, reduce absorbency, and prepare a uniform surface for coating. Apply using a short-pile epoxy roller or brush, ensuring full surface coverage with a continuous film. If the substrate is highly absorbent, a second coat is recommended. The waiting time between coats must comply with the technical data sheet.

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As an Adhesion Promoter:
Apply quartz sand (0.3–0.8 mm) onto the freshly applied primer using the full broadcast method until complete coverage is achieved. No bare areas should remain.
After curing, remove excess sand by sweeping and vacuuming. This method significantly increases mechanical interlocking and adhesion of subsequent coatings, preventing delamination.

For high-moisture substrates, two coats are recommended. During application, ambient and substrate temperature, relative humidity, and dew point must be within specified limits. Protect the product from rain and moisture during application.

Consumption

Surface Condition	Number of Coats	Consumption (kg/m²)	Remarks
Smooth, low absorbent	1	0,25-0,30	Single coat sufficient
Medium absorbent	1–2	0,30–0,45	Second coat wet-on-wet
Highly absorbent / porous	2	0,4-0,6	Until saturation
Broadcasted mechanical adhesion bridge	1	0,35–0,50 + 0,5–1,0 kuvars	0,3–0,8 mm sand

Important Notes

- Apply a protective topcoat in areas exposed to pedestrian traffic or direct sunlight.
- Two coats are recommended on high-moisture substrates.
- Technical values are based on laboratory conditions and may vary depending on site conditions, substrate absorbency, and temperature.
- Epoxy resins tend to yellow under UV exposure; use UV-resistant coatings for outdoor or sun-exposed areas.
- Incorrect mixing ratios, insufficient mixing, or improper equipment may cause curing issues and surface defects.
- If the maximum recoat interval is exceeded, lightly sand and clean the surface.
- Product is intended for professional use; trial application is recommended for large areas.
- Do not apply below +10°C or above +30°C.
- Light foot traffic after 12 hours.
- Full mechanical and chemical resistance after 7 days.
- Proper substrate cleaning is critical for performance; use industrial vacuum cleaners.
- Limited resistance to strong acids and solvents; compatibility testing is recommended before use.

Safety Precautions

- Keep out of reach of children.
- Do not eat or ingest.
- Keep away from foodstuffs.
- Do not inhale and avoid skin contact.
- May cause allergic reactions.
- In case of eye contact, rinse immediately with plenty of water and seek medical advice.
- Wear gloves, goggles, and protective clothing during handling.
- Wash hands thoroughly with water after use.
- For detailed safety information, refer to the Material Safety Data Sheet (MSDS).

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Hammerfast®
Construction Chemicals

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Technical Properties

Color	A: Transparent / B: Amber
Chemical Structure	A: Epoxy Resin / B: Hardener
Mixing Ratio (A:B)	5:3 (by weight)
Density (A+B)	1,10±0,1 kg/L
Viscosity (A+B)	~ 1000 mPa·s
Max. Substrate Moisture	80% RH
Solid Content	100% (by volume)
Pot Life (250 g)	~20–25 min
Waiting Time for Coating	4-8 hours
Max. Recoat Time	24–36 hours (light sanding required if exceeded)
Heavy Traffic Resistance	3 days
Full Cure Time	7 days
Application Temperature	+8 ^{0}C / +30 ^{0}C
Service Temperature (continuous)	-20 ^{0}C / + 60^{0}C
Shore D Hardness (DIN 53505)	82
Compressive Strength (EN 196-1)	70-80 N/mm^2 (7 days)
Flexural Strength (EN 196-1)	30 N/mm^2 (7 days
Adhesion Strength (EN 1542)	≥ 2,5 N/mm^2 (failure in concrete)
Impact Resistance (EN ISO 6272)	~ 20 Nm
Abrasion Resistance (EN 13892-4)	15 µm
Fire Classification (EN 13501-1)	E_{FL}
GITP kod	3907.30.00.00.00

Note: Values measured at 23 ± 2 °C and 50 ± 5% relative humidity.

Storage and Shelf Life

When stored in its original, unopened packaging in a dry, moisture-free environment, protected from direct sunlight and frost, and at temperatures between +10 °C and +30 °C, the shelf life of Components A and B is 12 months from the production date. If not used, the packaging must be tightly sealed. Pallets must not be stacked.

Packaging

Component A + B = 5 + 3 kg (8 kg set)

Cleaning of Tools

Clean the equipment immediately after application using epoxy thinner or a suitable cleaner. Cured material must be removed mechanically.

Quality Certificates

- CE
- ISO 9001
- ISO 14001

CE ISO 9001:2015 ISO 14001:2015

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