

RM-450



Powder Release Agent Providing Antique Effect for Stamped Concrete Systems

Description

Hammerfast RM-450 is a powder-form release agent containing pigments, used in cement-based stamped concrete systems to prevent molds from sticking to the surface while simultaneously imparting an aged (antique) decorative appearance.

Advantages

- Prevents molds from sticking to the surface, ensuring easy and quick release from concrete,
- Provides a natural aged (antique) appearance to the concrete,
- Offers an aesthetic finish,
- Reduces wear and tear of molds,
- Easy to apply thanks to its powder form,
- Contains UV-resistant pigments,
- Enhances the visibility of surface details,
- Ensures full transfer of mold patterns onto the concrete surface.

Areas of Use

Used in indoor and outdoor applications such as residential, commercial, and industrial flooring; garages, gas stations, and parking areas; storage and loading zones; workshops, factories, production facilities, shipyards, stores, offices, supermarkets, hangars, etc.

- Stamped concrete floors,
- Walkways and sidewalks,
- Parking areas,
- Gas stations,
- Garden and landscaping areas,
- Terraces and courtyards,
- Internal roads of residential complexes,
- Villa surroundings and site perimeters,
- Decorative concrete surfaces,
- Commercial and residential outdoor applications.

Surface Preparation

- Proper sub-base preparation is critical to achieve a durable and long-lasting stamped concrete application. The bearing capacity of the soil must be checked and improved if necessary.
- If the application area consists of natural soil, proper compaction is essential to ensure sufficient load-bearing capacity.
- The sub-base layer should be laid at the thickness specified in the project and compacted using appropriate equipment. After completion, applying a plastic sheet is recommended for moisture control.
- The surface must be completely free of dust, oil, dirt, and loose particles that may negatively affect adhesion. It should be smooth, sound, and ready for application, with a minimum concrete class of C25 (approx. 350 kg cement dosage).
- The appropriate concrete class should be selected based on the size and intended use of the area. After placing the reinforcement system specified in the project, concrete is poured. In addition to conventional reinforcement, steel fiber-reinforced concrete is also widely used. The surface is leveled using a screed.
- After casting, the surface should be leveled and finished to achieve a smooth and homogeneous structure. The surface is troweled and prepared for application. Necessary precautions should be taken to prevent plastic shrinkage cracks.
- Expansion joints must be left between the concrete floor and vertical structural elements (walls, shear walls, etc.). For this purpose, insulation boards with a minimum thickness of 2 cm should be placed along the edges before application. This allows expansion and shrinkage movements due to temperature changes and shrinkage, reducing crack formation risk. These gaps should later be filled with suitable elastic joint sealants.

Technical Properties

Color and Appearance	Grey powder
Composition	Water-repellent special chemical blends
Density	1,05 kg/L
Particle Size	Fine micronized
Application Temperature	+5°C to +30°C
Consumption	150 – 200 g/m ²
HS Code	3206.49.00.00.00

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

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Application

- Broadcasting should begin after bleed water disappears and the concrete has hardened enough to leave a 0.5–1.5 cm footprint when stepped on.
- Hammerstrong Stamped Concrete surface hardener is broadcast onto the surface at approximately 4–5 kg/m² in a uniform manner and finished with a steel trowel.
- After coloring with Hammerstrong, the concrete is allowed to reach a plastic consistency. Then, Hammerfast RM-450 powder release agent is applied at approximately 0.25 kg/m² in a thin, even layer.
- Decorative stamping molds are placed tightly onto the surface and struck using a pounding tool to imprint the pattern. After 1–2 days of curing, excess Hammerfast RM-450 is swept off and the surface is washed with pressurized water until the desired antique effect is achieved.
- High-pressure washing results in a lighter antique effect, while low-pressure washing creates a more pronounced aged appearance.
- Control joints should be cut within 1–3 days. After drying, Hammerfast HPE Sealer is applied by spray or roller to provide gloss.

Auxiliary Materials

- Hammerstrong Stamped Concrete: Surface hardener
- Hammerfast HPE Sealer: Stamped concrete sealer
- Hammerfast AK-100: Acrylic curing compound

Consumption

150 – 200 g/m²

Precautions

- Apply between +5°C and +30°C.
- Avoid application in very humid or hot weather, strong wind, or direct sunlight.
- Do not apply on frozen, thawing surfaces or where frost is expected within 24 hours.
- To prevent rapid moisture loss, Hammerfast AK-100 curing compound may be applied. If not used, lightly spray water and cover with plastic sheet or burlap.

Storage and Shelf Life

12 months from the date of production when stored in original, unopened packaging in dry, moisture-free environments, protected from direct sunlight, at temperatures between +10°C and +35°C. Packaging should be tightly closed when not in use. Maximum stacking: 2 pallets.

Safety Precautions

- Keep out of reach of children.
- Do not eat or swallow.
- Keep away from foodstuffs.
- Avoid inhalation and direct contact.
- May cause allergic reactions.
- In case of eye contact, rinse thoroughly with water and seek medical attention.
- Use gloves, goggles, and protective clothing during application.
- Wash hands thoroughly after use.
- Refer to the Material Safety Data Sheet for detailed safety information.

Packaging

Supplied in 15 kg kraft bags.

Cleaning of Tools

All tools should be cleaned with water immediately after application.

Quality certificates

- ISO 9001
- ISO 14001

