Hammerfast®
Construction Chemicals

EP-303

Solvent-free, two-component, epoxy-based floor coating with a pronounced orange peel textured surface

Description
Hammerfast EP-303 is a solvent-free, two-component, epoxy-based floor coating with a dense orange peel texture, designed to provide anti-slip and decorative finishes in industrial and commercial areas, and suitable for both vertical and horizontal application

Advantages
- Solvent-free and has low VOC content.
- Thanks to its non-sagging and non-slumping properties, it can be applied on both vertical and horizontal surfaces.
- Offers broad chemical resistance (oils, fuels, many chemicals).
- Applied with a roller, creating a uniform and seamless texture.
- Easy to maintain and clean.
- Provides slip resistance and masks scratches.
- Durable and long-lasting.
- High mechanical and chemical resistance (pressure, abrasion, impact).
- Free of nonylphenol.
- Provides a glossy and vibrant appearance.

Areas of Use
Hammerfast EP-303:

- Production facilities, workshops, hangars, warehouses, and logistics areas.
- In wet areas where anti-slip properties are required,
- Automotive industry, hospitals, parking lots, and ramps.
- Factory floors, pharmaceutical, food, beverage, and chemical industries, and laboratory flooring.
- Hospitals, laboratories, schools, offices, and showrooms.
- Any areas requiring medium-heavy duty epoxy flooring systems.
- Floor coatings for shopping centers.

Surface Preparation and Application
Substrate Preparation:
All oil, grease, curing compounds, paint, and weak layers must be completely removed from the surface to be coated. The surface should be dry or only slightly damp. Ensure that there are no loose or crumbly layers on the application surface. The substrate must have a minimum compressive strength of 25 N/mm², a minimum tensile strength of 1.5 N/mm², and a maximum moisture content of 4% (no capillary moisture).

If the moisture content of the substrate exceeds 4%, Hammerfast N-200 moisture barrier should be used during the priming process.

It is important that the application surface is sound and rough. To achieve this, the surface should be roughened by sanding, shot blasting, or milling (CSP 2–4), and all dust must be removed using industrial vacuum cleaners. Any cracks or voids on the surface should be filled and repaired using Hammerfast EP-145 or EP-120 epoxy repair and casting materials

Surface Requirements:
Before application, Hammerfast EP-112 epoxy primer should be applied and broadcasted with quartz sand (0,3–0,8 mm) using the full saturation method. The sand must cover the entire surface evenly, leaving no bare areas. After curing, excess quartz sand should be swept and vacuumed off.
This method ensures mechanical interlocking of the Hammerfast EP-303 coating, significantly improving adhesion and preventing delamination from the substrate.

Intermediate Coat Application:
After the primer application, an intermediate coat should be applied to ensure a smooth final layer. Add Hammerfast EP-301 Component B to Component A and mix with a low-speed mixer (300–400 rpm) for 2–3 minutes until a homogeneous mixture is obtained. The mixture is then applied to the floor using a trowel at a consumption rate of approximately 400–500 g/m². The leveling material is necessary to create a smooth surface and ensure that the self-leveling topcoat achieves an even finish. After the intermediate coat application, the surface should be protected until the final coat is applied.

Topcoat Application:
For the topcoat, mix Hammerfast EP-303 Component A with a low-speed mixer (300–400 rpm) for 2–3 minutes. Then pour Component B into Component A and mix for an additional 2–3 minutes until a homogeneous mixture is achieved. The mixed material is poured onto the prepared floor and spread using a steel trowel. A coral roller is then used to create the desired texture, completing the application.

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Technical Properties

Color	A: Colored / B: Transparent-Light yellow
Mixing ratio (A:B)	6,7:1 (By weight)
Density (A+B)	1,90±0,1 kg/L
Viscosity (A+B)	3000-4000 mPa·s
Pot life / Working time	~ 25 min.
Gel time	~ 60 min.
Time to light vehicle traffic	48 hours
Intercoat waiting time (min/max)	Min.: 18 hours Max: 48 hours
Full cure time	7 gün
Application and substrate temperature	+10 ^{0}C / +35 ^{0}C
Service temperature (Continuous)	-20 ^{0}C / + 60^{0}C
Maximum substrate moisture content	Max. % 4
Shore D hardness (DIN 53505)	80 (7 gün)
Compressive strength (EN 196-1)	50 N/mm^2 (7 days)
Flexural strength (EN 196-1)	25 N/mm^2 (7 days)
Adhesion strength (EN 1542)	≥ 2,0 N/mm^2 (Concrete failure)
Impact resistance (ISO 5470-1)	~ 20 Nm
Abrasion resistance (ISO 5470-1) "Taber"	90 mg
BCA abrasion resistance (EN 13892-4)	50 µm
Fire classification (EN 13501-1)	E_{FL}
HS Code	3907.30.00.00.00

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

Consumption

For Primer Application:
Hammerfast EP-112: 0,4–0,6 kg/m²
Quartz sand: 1,2–1,5 kg/m²

For Intermediate Coat Application:
Hammerfast EP-301: 400–500 g/m²

For Topcoat Application:
Hammerfast EP-303: 0,90 kg/m²

Important Notes

- The provided technical values are typical values obtained under laboratory conditions. Field conditions, substrate porosity, and temperature may cause variations.
- Epoxy resins are prone to yellowing when exposed to UV light; for outdoor areas or sun-exposed surfaces, a UV-resistant topcoat should be applied for protection.
- Incorrect mixing ratio, insufficient mixing, or inappropriate equipment may cause curing problems and surface defects.
- The product is intended for professional applicators. For large areas, a trial application is recommended.
- Should not be applied at temperatures below +10 °C or above +30 °C; otherwise, pot life and curing times will be affected.
- Can be opened to light pedestrian traffic after 48 hours.
- Resistant to heavy loads and chemical exposure after 7 days.
- Do not place coverings, cardboard, or objects on the coating before full cure (7 days).
- Do not clean, wash, or expose the coating to liquids before full cure (7 days).
- Proper cleaning of the substrate is critical for application performance; do not proceed with application until the surface is thoroughly cleaned. Industrial vacuum cleaners are recommended for cleaning.
- The product should not be applied directly on surfaces exposed to constant water or subject to hydrostatic pressure from the negative side.
- The product has limited resistance to strong acids and solvents; compatibility testing is recommended before use.
- Consumption may vary depending on coating thickness, substrate conditions, and the use of aggregates.

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Safety Precautions

- Keep out of reach of children.
- Do not eat or swallow.
- Keep away from foodstuffs.
- Do not inhale or allow contact with skin.
- May cause an allergic reaction.
- In case of contact with eyes, rinse thoroughly with plenty of water and seek medical advice.
- It is recommended to wear gloves, goggles, and protective clothing during use.
- Wash hands thoroughly with water after handling.Detaylı güvenlik bilgisi için Malzeme Güvelik Bilgi Föyünü okuyunuz.

Storage and Shelf Life

When stored in its original, unopened packaging in a dry environment, protected from direct sunlight and frost, and kept at temperatures between +10 °C and +30 °C, the A and B components have a shelf life of 12 months from the production date. If not in use, the packaging should be tightly sealed. Pallets should not be stacked on top of each other.

Packaging

Component A – Resin: 11 kg metal bucket
Component B – Hardener: 1,5 kg metal bucket

Cleaning of Tools

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

Quality Certificates

- CE
- ISO 9001
- ISO 14001

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