

Product Data Sheet

CasTech Coat FS 500

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Solvent-Free High-Build Epoxy Floor Coating

DESCRIPTION

CasTech Coat FS 500 is a three-component, high-performance, solvent-free epoxy system designed for the protection of concrete. Once cured, it has excellent abrasion and good chemical resistance, providing an attractive, hard-wearing and easily cleanable floor finish.

TYPICAL USES

- Chemical manufacturing plants
- Car parks and workshops
- Warehouses and industrial floors
- Production and assembly areas, dairies, bottling plants, breweries, pharmaceutical plants, kitchens and showrooms

ADVANTAGES

Key advantages:

- Solvent free
- Easy application by brush, roller or squeegee
- Excellent chemical resistance
- High abrasion and impact resistance
- Durable, low maintenance cost
- Slip-resistant finish can be obtained

TYPICAL PROPERTIES

Appearance	Liquid coating
Specific Gravity @ 25°C (ASTM D1475)	1.45 (± 0.02)
Pot Life @ 25°C (ASTM D2471)	> 1.0 hour
Touch Dry @ 25°C	6 – 8 hours
Compressive Strength (ASTM C579)	> 65.0 N/mm ²
Overcoating Time	Min. 20 h / Max. 36 h
Full Cure @ 25°C	7 days
Bond Strength (ASTM D7234)	> 5.0 N/mm ²

All values given are subject to 5 – 10% tolerance.

CHEMICAL RESISTANCE

Excellent resistance to: ammonium hydroxide, soap solution (1%), hydrochloric acid (10%), sulphuric acid (3%), nitric acid, edible olive oil, detergent solution (0.025%), hydrogen peroxide solution (3%), phenol solution (5%), sodium carbonate solution (2%), sodium chloride solution (10%), sodium hydroxide solution (10%), petrol, diesel, sea water and acetic acid (5%).

SURFACE PREPARATION

Long-term durability can only be achieved with good

preparation giving a strong adhesive and mechanical bond.

New concrete floors: concrete should be more than 28 days old with a moisture content below 5%, sound and free from oil, grease, mortar and paint splashes or curing compound residues. Remove laitance by light mechanical scabbling, grinding or grit/captive blasting, followed by vacuum cleaning.

Old concrete floors: ensure the substrate is free of oil, grease, laitance and loose friable matter. Remove oil and grease with a proprietary degreaser or hot compressed air. Repair damaged areas with suitable CasTech products.

Priming: not normally required on sound, good-quality non-porous concrete. If in doubt, or if porous, prime with CasTech Floor EP by brush or roller and allow to become tack-free before top coating. Re-prime if not overcoated within 18 hours.

MIXING

Mix Component A separately for two minutes with a heavy-duty, slow-speed drill and paddle (200 – 300 rpm) until homogeneous. Pour the hardener (Component B) into the base and mix for another two minutes. Mix a complete kit at a time and avoid over-mixing to minimise air entrainment. Use within the pot life.

APPLICATION

A minimum two-coat application is recommended. Apply the first coat by brush or roller at a theoretical coverage of 4 – 5 m²/L/coat in a continuous, uniform layer. For a non-slip finish, broadcast anti-slip aggregate into the wet first coat; allow to dry and sweep off excess. Apply the second coat in the same manner after 20 – 36 hours. For high-risk areas, embed glass-fibre reinforcement in the wet first coat at floor/wall junctions and joints.

CURING

Allow to cure fully for 5 – 7 days before exposure to full mechanical, chemical or environmental loads.

LIMITATIONS

- Substrate temperature should be above 5°C and rising
- Do not apply on asphalt floors or PVC tiles
- Do not apply on surfaces subject to rising damp or RH > 70%
- Use within the pot life; discard unused material
- Do not thin with solvent under any circumstances

HOT WEATHER CONDITIONS

Above 40°C: store unmixed materials in a cool, preferably temperature-controlled environment; avoid exposure of mixed and unmixed materials and equipment to direct sunlight; avoid

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application during the hottest time of day.

CLEANING

Clean tools and equipment with a suitable solvent immediately after use. Hardened material must be removed mechanically.

PACKAGING

18 L three-pack kit: Component A – Resin, Component B – Hardener, Component C – Colour pack (17.2 L neutral + 0.8 L colour pot).

STORAGE AND SHELF LIFE

12 months from the date of manufacture when stored in cool, dry, shaded warehouses in tightly closed containers, out of direct sunlight and protected from extreme

temperatures. Excessive humidity and UV exposure reduce shelf life.

HEALTH AND SAFETY

PPE: Always use protective clothing, eye goggles and gloves when handling this product.

Precautions: Avoid contact with skin or eyes. Wash skin immediately with soap and plenty of water; rinse eyes immediately with fresh water and seek medical attention.

Additional information: Refer to MSDS (available on request).

TECHNICAL SUPPORT

CasTech provides on-site assistance and consulting services on projects when requested. Technical data sheets on other CasTech products and guidance on their use are available on request.

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