KingCoat® EP50W

Water based epoxy resin floor and wall coating

DESCRIPTION

KingCoat EP50W is a high performance two-component, water dispersible, epoxy resin coating, designed to provide a hard, semi-matt seal to concrete floors, walls, ceiling and other substrates.

APPLICATIONS

KingCoat EP50W is used as general protection coating for floors or walls in many applications including:

- Soft drink and beverage production areas.
- Industrial and commercial kitchen walls.
- Warehouses.
- Hospitals and pharmaceutical factory walls.
- Fish and meat processing plant walls.
- General food processing and manufacturing plants.
- Light vehicular traffic areas.

ADVANTAGES

- Water based, moisture tolerant.
- Solvent free, non tainting.
- Dust free surfaces.
- Available in a wide range of attractive colours.
- Cost effective.
- Good chemical and mechanical resistance.
- Easy application.

METHOD OF USE

Substrate Preparation

The substrate must be clean, dry, even, dense and free from oil, grease, dust and other contaminants. A clean surface will ensure maximum adhesion between the substrate and the coating.

Concrete floors must have a minimum compressive strength of 25 N/mm² and a maximum concrete relative humidity of 80% (max. moisture content of 4%), relative humidity can be measured using a hygrometer. Concrete relative humidity should be less than 80% for concrete 28 days old or more.

SURFACE PREPARATION

Unsound layers and contaminated concrete surfaces must be prepared using mechanical surface removing equipment. Acid etching can be used only in well ventilated areas.

Areas deeply contaminated by oil or grease, should be treated by hot compressed air.

TECHNICAL PROPERTIES

Specific gravity:	1.22 @ 25°C
Pot life:	2 hr @ 20°C 1 hr @ 35°C
Minimum time between coats:	6 hr @ 20°C 4 hr @ 35°C
Maximum time between coats:	24 hr @ 20°C 16 hr @ 35°C
Dry film thickness:	65 - 75 microns/coat
Curing time:	7 days @ 20°C 6 days @ 35°C
Taber abrasion resistance: (1000 g, 1000 cicle) ASTM D4060, weight loss CS17 wheel	80 milligram
VOC:	< 20 g/ltr

PRIMING

Porous substrates should be primed with KingCoat EP50W diluted with up to 10% by volume with potable water. Mixing should be carried out by heavy duty slow speed drill fitted with a mixing paddle.

MIXING

To avoid inconsistent workability and pot life, ensure that the materials to be used are stored in shaded area and protected from extremes of temperatures, for at least 24 hours prior to application.

Prior to mixing, stir individual components of Resin, Hardener and colour pack. Add the entire contents of the colour pack into the hardener container and mix with heavy duty drill for 2 minutes till a uniform colour is achieved. Add the entire contents of the base container to the mixed colour pack and hardener and mix thoroughly for at least 3 minutes.

COATING

Use brush or lambs wool roller, or airless spray machine to apply the mixed KingCoat EP50W onto the prepared surfaces.

Apply 2 coats of KingCoat EP50W at 6 m²/kg/coat, second coat should be applied at a right angle to the first coat.

The second coat may be applied as soon as the first coat has initially dried. Drying time will depend on the substrate and the ambient conditions. If the over coating time is exceeded the first coat must be abraded with sand paper prior to the application of the second coat.

Adequate ventilation must be provided to ensure that necessary drying and curing of the material is achieved.

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REMARKS

- Higher traffic areas should receive extra coats or a higher build system.
- KingCoat EP50W should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 85%.
- KingCoat EP50W should not be applied onto surfaces known to suffer from rising damp.
- In case of spray applications, airless spray machines should be used.

CLEANING

Tools and equipment can be cleaned with clean water while wet. Dried KingCoat EP50W can be removed with KINGKRETE Solvent.

PACKAGING

KingCoat EP50W is available in 5 and 20 kg packs.

COVERAGE

The coverage rate is 30 m²/5 kg pack per coat to achieve dry film thickness of 65 - 75 microns per coat.

Occassional Spillage. Chemical Resistance after full cure (7 days @ 25oC), ASTM D1308 (spot test @ 1 hr & 30oC)	
Motor oil	R
Diesel	R
Petrol	R
Detergent	SS
White spirit	R
Xylene	SS
Acetone	SS
Phosphoric Acid (50%)	R
Sulphuric Acid (25%)	SS
Hydrochloric Acid (10%)	SS
Nitric Acid (10% solution)	SS
Sodium Hydroxide (50%)	SS
Sodium Chloride (saturated)	R
Brine (saturated)	R

R: Resistant RS: Resistant with slight discoloration SS: Slight softining

STORAGE

Shelf life is 1 year when stored under cover, out of direct sunlight and protected from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult KingKrete's Technical Services Department.

HEALTH AND SAFETY

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use. Use in well ventilated areas and avoid inhalation.

NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local KingKrete representative. KingKrete Inc. reserves the right to have the true cause of any difficulty determined by accepted test methods.

QUALITY AND CARE

All products originating from KingKrete's Middle East facility are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, ISO 14001 and ISO 45001.

* Properties listed are based on laboratory-controlled tests.

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Ref: KK-06014-MEA-R01 | Issue: 01.2026

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