KingFloor® PA250

High solids epoxy polyamide coating.

DESCRIPTION

KingFloor PA250 is a high solids epoxy polyamide coating for use over well prepared steel, concrete and previously coated surfaces. The product has excellent adhesion properties and good flexibility and resistance to abrasion and chemicals.

APPLICATIONS

KingFloor PA250 is designed for use directly on metal substrates in high performance architectural applications and on primed substrates for many applications in industrial environments such as:

Institutional, industrial, commercial, and laboratories walls.

Metal structures.

Chemical processing equipment.

Food and chemical industries, laundries and power plants.

Exterior protection of pipes and tanks.

ADVANTAGES

High chemical and mechanical resistance.

Excellent adhesion to concrete and steel surfaces.

High abrasion, wear and impact resistance.

Good flexibility, suitable for low temperature exposure conditions.

Cost effective.

Easy application.

METHOD OF USE

Substrate Preparation

Steel Surfaces:

All surfaces should be grit blasted to reach a bright finish meeting the requirement of Swedish Standard SA 2 1/2. Do not leave blasted steel uncoated overnight.

Concrete surfaces:

The Substrate should be sound, clean and free from contamination. Surface Laitance should be removed by grit blasting or water jetting. All blow holes should be filled with epoxy paste such as KingRep EP10.

PRIMING

Steel:

KingFloor PA250 is designed to be used without a primer. However, on steel surfaces, use KingFloor PA250 Primer when rust inhibitive primer is specified as the first coat.

TECHNICAL PROPERTIES

Colour:	Wide range of colours
Finish:	Gloss
Mixed density:	1.25 ± 0.05 g/cm3
Solid content:	70 ± 2%
Volume solids:	56 ± 2%
Pot life:	180 - 200 min @ 25°C
Tack free time:	3 - 4 hr @ 25°C
Dry time, dry hard: ASTM D1640	1 - 2 hr @ 25°C
Dry film thickness:	65 - 100 microns per coat
Minimum over coating time:	4 hr @ 25°C
Maximum over coating time:	7 days @ 25°C
Minimum application temperature:	10°C
Full cure:	7 days @ 25°C
Bond strength: ASTM D4541	≥ 7 MPa (concrete failure) ≥ 7 MPa (on steel)
Impact resistance: ASTM D2794	10 N.m
Flexibility: ASTM D522, 180° bend, 1/4" mandrel	Passes
Pencil Hardness: F-H according to ASTM D3363	Passes
Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight Loss CS17 wheel	80 mg @ 14 days
Dry heat resistance:	93°C (No loss of adhesion was observed @ 180° bend, 5/8" (16 mm) mandrel
VOC: ASTM D2369	< 450 g/ltr

Concrete:

Highly porous concrete surfaces should be primed with KingFloor Primer S.

MIXING

To avoid inconsistent workability and pot life, make sure 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.

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Prior to mixing, stir individual components of Resin, Hardener and colour pack. Add the entire contents of the colour pack into the base container and mix with for 2 minutes till a uniform colour is achieved.

Add the entire contents of the hardener container to the mixed colour pack and base and mix thoroughly for at least 3 minutes.

COATING

Use brush or lambs wool roller, or airless spray machine to apply the mixed KingFloor PA250 onto the prepared surfaces.

Apply 2 coats of KingFloor PA250 at 4.5 m²/kg/coat to achieve 100 microns dry film thickness, 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.

NOTES:

- KingFloor PA250 should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 85%.
- KingFloor PA250 should not be applied onto surfaces known to suffer from rising damp.
- In case of spray applications, airless spray machines should be used.

CLEANING

All tools should be cleaned immediately after application using KINGKRETE Solvent. Hardened materials must be cleaned mechanically.

PACKAGING

KingFloor PA250 is available in 5 kg packs (4 litre) and 20 kg packs (16 litre).

Occassional Spillage. Chemical Resistance after full cure (7 days @ 25°C), ASTM D1308 (Spot - test @ 1 hr)	
Organic acids	
Acetic Acid 10%	RS + SS
Lactic Acid 10%	R
Citric acid	
Inorganic Bases	
Sodium Hydroxide 50%	R
Aqueous Solutions	
Sodium Chloride sat	R
Tap water	R
Solvents	
Benzyl alcohol	
White spirit	R
Acetone	R
Oils & Fuels	
Brake fluid	R
Inorganic Acids	
Sulphuric Acid 25%	R
Phosphoric Acid 20%	RS
Hydrochloric Acid 10%	R
Nitric Acid 10%	R

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

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Hardness after chemical/solvent exposure: ASTM D3363		
Chemical	Exposure	Hardness
5% Sulphuric Acid	1 hr	Minimum 7B
15% Hydrochloric Acid	1 hr	Minimum 7B
20% Sodium Hydroxide	1 hr	Minimum 7B
Aliphatic hydrocarbon solvent	2 hr	Minimum 7B
Methyl alcohol	1 hr	Minimum 7B
Motor oil (10W30)	2 hr	Minimum 7B
Vegetable oil	2 hr	Minimum 7B

COVERAGE

4.5 m²/kg per coat to achieve 100 microns dry film thickness.

Two coats should be applied to achieve 150 to 200 microns dry film thickness.

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.
® = Registered trademark of the KingKrete-Group in many countries.

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