KT Systems Flooring Series

Solvent Free Epoxy Floor System

DESCRIPTION

KT SYSTEMS FLOORING SERIES is based on epoxy technology uniquely engineered for classy interior design purposes. It is a solvent free, fast curing, epoxy based and seamless decorative flooring system. Being highly customized, the choices include clear, marble-like or coloured flakes finish and a UV-stable clear protective topcoat can be added for non-slip properties.

RECOMMENDED USE

- Homes, toilets, kitchens
- Showrooms, lobbies, reception areas, commercial office
- Museum, galleries
- Institutional facilities

ADVANTAGES

- Fast curing – For fast moving projects with a short working time frame
- Easy to maintain
- UV Stable – suitable for both indoor and outdoor applications
- Resistance to most industrial chemicals
- Solvent Free
- Can be applied on damp surfaces

APPLICATION GUIDELINES

a) Surface Preparation – New Concrete surface

- New concrete/cementitious substrates should be at least 28 days old with moisture content less than 5%.
- Concrete receiving high performance overlay systems should be designed, mixed and placed in accordance with international standard requirements.
- Sufficient compressive and tensile strength to withstand dynamic loading is required.
- Good surface is essential prior application as a dense surface caused by over troweling or finishing using steel float may lead to adhesion/bonding failure.

b) Surface Preparation – Old / Existing Concrete surface

- The substrate must be sound and of sufficient compressive and tensile strength in accordance to international standard requirements.
- Substrate must be clean, dry and free of all contaminants like oil, dirt, grease, coatings and surface treatments.
- All surface irregularities should be patched with suitable repair mortar or seal.
- Remove all laitance, curing agent, loose particles and other contaminants by mechanical means, followed by vacuum cleaning.
- Areas deeply penetrated with oils, greases or fats should be cleaned thoroughly using a suitable industrial cleaning agent.
- Substrates should be allowed to left to dry completely prior to application.

c) Overlay (Ceramic Tiles)

- Mechanical grinding over tiles is required.
- Ensure that all tile surface coating is grinded off, leaving only the rough surface.
- Area with cracks or pot holes must be repaired and grind levelled.
- Clean or vacuum the entire flooring to remove all dust and debris in preparation for application of K-Primer.

d) Product Mixing

- Primer / Base Coat (Coloured) – K-Primer

  K-Primer is supplied in two pre-weighted parts (Resin & Hardener). Stir each part separately and pour Part B (Hardener) into Part A (Resin) container. Mix both parts together with a handheld mechanical mixer at slow speed (300rpm) for 2-3 minutes, until homogeneous.

- Receiver Coat – K-Flakes Binder

  K-Flakes Binder is supplied in two pre-weighted parts (Resin & Hardener). Stir each part separately and pour Part B (Hardener) into Part A (Resin) container. Mix both parts together with a handheld mechanical mixer at slow speed (300rpm) for 2-3 minutes, until homogeneous.

- Top Coat – K-Top (w/wo Anti-Slip)

  K-Top is supplied in two pre-weighted parts (Resin & Hardener). Stir each part separately and pour Part (Hardener) into Part A (Resin) container. Mix both parts together with a handheld mechanical mixer at slow speed (300rpm) for 2-3 minutes, until homogeneous.

e) Product Application

Apply the mixed K-Primer evenly over the entire substrate using a squeegee, trowel, short-bristled paint brush or short snap roller. Work well with paint brush in areas where substrate is porous and rough. Ensure all areas are well primed and levelled with a minimum thickness of about 1 to 2mm to build up a moisture barrier. Avoid over application or puddling. Any up-turn required must be kept at minimum 10cm high all round or at least a tile size height, whichever is greater.

Once cured, apply K-Flakes Binder evenly over the entire flooring using a squeegee, trowel, short-bristled paint brush or short snap roller. Ensure all areas are well covered and levelled with a minimum thickness of about 1 to 2mm. Board-cast the entire floor with the coloured flakes and ensure the area is fully covered with the coloured flakes before allowing the binder to cure. Once cured, scrap off any loose coloured flakes with a metal scrapper and remove all particles using a vacuum. Soft sanding of the floor can be done. Ensure that the floor is smooth, levelled and free from dust and debris before proceeding to the final finishing stage.

Apply the mixed K-Top evenly over the entire flooring using a squeegee or short snap roller. Ensure the whole floor is well covered and levelled. Once done, allow it to cure.

f) Cleaning

All tools should be cleaned with suitable solvent (Eg. Xylene/Toluene) immediately after use, before the resin hardens. Cured materials may only be removed mechanically.

PACKAGING

KT SYSTEMS FLOORING SERIES

K-Primer – 15kg Set
K-Binder – 14kg Set
K-Flakes – 10kg Bag
K-Top – 5L Set

SYSTEM INFORMATION

DESCRIPTION		PRODUCTS	*COVERAGE
• Primer / Base Coat (Coloured)	=	K-Primer	3-5m²/kg
• Receiver Coat	=	K-Flakes	0.4-0.6kg/m²
		K-Binder	3-5m²/kg
• Top Coat	=	K-Top	6-8m²/L
Optional			
• 2nd Primer / Base Coat (Coloured)	=	K-Primer	3-5m²/kg
• 2nd Top Coat	=	K-Top	6-8m²/L

* Material coverage is based on estimation and for reference only. May vary depending on actual site conditions and application methods.

COLOUR

White, Black, Grey (Other colours available upon request)

TECHNICAL PROPERTIES

Property @ 25°C	Resin (Part A)	Hardener (Part B)
Solid	100%	100%
Mix Ratio		
K-Primer	6.5	1
K- Flakes + Binder	2.5	1
K-Top	4	1

Pot Life @ 25°C		
K-Primer	20 - 30 minutes	
K- Flakes + Binder	20 - 30 minutes	
K-Top	30 – 40 minutes	
D Shore Hardness	> 75	ASTM D2240
Compressive Strength	> 75 MPa	ASTM D695
Flexural Strength	> 80 MPa	ASTM D790
Tensile Strength	> 70 MPa	ASTM D638
Adhesion Strength	> 1.5 N/mm² (Concrete Failure)	
Elongation At Break	> 2.1%	ASTM D638
Water Absorption	1.2%	ASTM C413
Final Cure	7 days	

STORAGE

KT SYSTEMS FLOORING SERIES should be stored at room temperature, kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, a 12-month shelf life can be expected from date of manufacturing.

KT SYSTEMS FLOORING SERIES must be stacked or stored in a manner to prevent damages from the weight of another roll or other materials.

HEALTH & SAFETY

KT SYSTEMS FLOORING SERIES is non-hazardous to health under normal usage. Refer to KT SYSTEMS FLOORING SERIES SDS for further information.