

Crown 2K Polyurethane Enamel

Product Description

Type: A two component Polyurethane resin-based coating cured with isocyanate hardener. It is an industrial and architectural coating characterized by high gloss, quick drying, excellent gloss retention, UV resistance, flexibility, and chemical resistance. 2K polyurethane enamel provides superior appearance, interior & exterior durability hence making it the best choice for equipment and substrates which are constantly exposed to sunlight.

Recommended use: For high quality machinery, office equipment, home appliance, gas cylinders, fuel storage tanks, external part of water tanks, out-door car parks, terraces, cladding, concrete, steelworks, fibreglass, heavy marine equipment, institutional and waste treatment areas where a highly resistant and attractive coating is desired.

Substrates: Suitably primed or previously painted mild steel, galvanized iron, aluminum, fibreglass, wood, cladding and concrete.

Advantages: Durable. Excellent UV protection and colour retention. Excellent resistance petrol, mild chemicals, mechanical abrasion and harsh weather conditions.

Conditions during application: The temperature of the substrate should be minimum 10°C and at least 3°C above the dew point of the air, measured near the substrate. Good ventilation is required in confined areas to ensure proper drying.

PRODUCT DATA:

Colour Range: A range of solid colours, metallic silver plus clear.

Pack Sizes: 4 litres and 20 litres Base. 1L Hardener

Finish: High Gloss

Thinner & equipment cleaner: 2K Polyurethane Thinner

Solids: 60%-62% (by weight).

Supply Viscosity: 128 -132 seconds B4 Cup @25°C.

Dry Film Thickness: 40-45 µm.

Hardness: Minimum 4H (after 24 hours).

Flexibility: Passes Conical Mandrel (7mm) after 24 hours.

CHEMICAL CHARACTERISTICS:

Acid Resistance: Passes 0.1 (N) H₂SO₄ for 2 hours at 30 degrees C.

Petrol Resistance: Passes 4 hours immersion at 25 degrees C.

Humidity and Salt Spray: Passes 168 hours and 96 hours respectively. (As per ASTM

TECHNICAL DATA SHEET



specification)

APPLICATION DATA:

The product can be applied by: Spray. Brush may also be used for lower quality jobs

Mixing Ratio: 4 parts Base: 1 part Hardener: 1 part Thinner (by volume)

Mixing: This product is highly susceptible to moisture and should be mixed/stored in dry, non-humid conditions. After mixing base, hardener and thinner in the correct ratio, allow to stand for 5-7 minutes for bubbles/effervescence to subside, before use.

Hardener contains isocyanate - ensure adequate ventilation and good booth extraction when spraying and put on respirator

Spreading Capacity per coat: Depends on film thickness applied, primer porosity, imperfections, temperature & wastage during painting.

8 – 10 m²/l per coat. Maximum spread rate per coat is obtained at minimum dry film thickness and vice versa.

Drying time

Surface Temperature	Touch Dry	Hard Dry	Overcoating/Repair Time	Potlife
15 – 25°C	1 hour	6 hours	6 hours	8 hours
26 – 30°C	¾ hour	4 -5 hours	5 hours	6 hours
31 – 35°C	½ hour	3 hours	4 hours	4 hours

For increased productivity, Crown 2K Polyurethane Enamel can be baked/ stoved at 60 – 70°C for 45 minutes after a 10 minute flash off

Surface preparation & Paint System:

Surface	Preparation	Primer	Topcoat
New Mild Steel	Remove rust, Degrease, etch using etch primer where applicable.	1 coat Crown 2K Polyurethane Primer. mixed 4:1:1 Base: Hardener: Thinner by volume.	2 coats Crown 2K Polyurethane Enamel. mixed 4:1:1 Base: Hardener: Thinner by volume.
New Galvanised Iron, Aluminium & Fibreglass	Remove rust, Degrease, etch using etch primer where applicable.	1 coat Crown 2K Polyurethane Primer. mixed 4:1:1 Base: Hardener: Thinner by volume.	2 coats Crown 2K Polyurethane Enamel mixed 4:1:1 Base: Hardener: Thinner by volume.
New (dry) Cement floor screeds and unpainted Plaster, Brick, Stone Surfaces	Remove loose particles. Moisture content < 3%. Smooth floors should be mechanically etched or chemically etched with 5% solution hydrochloric acid to improve adhesion, rinsed with water and allowed to dry. Apply Two pack epoxy clear as a penetrating sealer coat if floor is porous	1 coat Crown 2-pack Epoxy Primer mixed 3:1:1 Base: Hardener: Thinner by volume. Thinner may be increased by 10% to improve penetration	2 coats of Crown 2K-Polyurethane enamel or 2k polyurethane Floor Paint mixed 4:1:1 Base: Hardener: Thinner by volume.

TECHNICAL DATA SHEET



Previously painted floor in sound condition	If Epoxy or 2k PU coated, sand down to provide grip. If other coatings, remove previous coat with sandpaper or Paint Remover till bare wood	1 coat Crown 2-pack Epoxy Primer if necessary. Mixed 3:1:1 Base: Hardener: Thinner by volume. Thinner may be increased by 10% to improve penetration	1-2 coats of Crown 2K-Polyurethane enamel or 2k polyurethane Floor Paint mixed 4:1:1 Base: Hardener: Thinner by volume.
New wooden floor	Sand along the grain with P240 - 320 sandpaper and dust off	1 coat Crown 2-pack Epoxy Primer mixed 3:1:1 Base: Hardener: Thinner by volume. Thinner may be increased by 10% to improve penetration	2 coats of Crown 2K-Polyurethane enamel or 2k polyurethane Floor Paint mixed 4:1:1 Base: Hardener: Thinner by volume.

Caution

1. Mix just enough paint to cover area to be painted as the paint has limited pot-life after mixing
2. Do not inter- mix 2k polyurethane with two pack epoxy as material will gel.
3. Do not inter- mix left over epoxy paint with 2k polyurethane paint.
4. Clean application equipment ie roller, brush or spray gun epoxy system before switching over to 2k Polyurethane paint application. Using application tools with epoxy paint when applying 2k Polyurethane may lead to bitty finish.
5. Ensure each kit (eg epoxy+hardener+thinner) is used as supplied. Do not inter-mix thinners or hardeners.

Availability: From Crown Depots in Nairobi, Kisumu, Mombasa, Meru, Nyeri, Eldoret, Arusha, Mwanza, Dar es Salaam, Kigali and through Crown Stockists.

Storage Conditions: Store under cool dry conditions away from direct sunlight, heat and extreme cold.



Toxic/Harmful

Harmful/Irritant

Highly/Extremely

Dangerous for the

Flammable

Environment

For additional health & safety information, please refer to our Material Safety Data Sheet (MSDS)

Disclaimer: The recommendations contained herein are given in good faith and meant to guide the user in accordance with good painting practices. They are gained from our tests and experiences and are believed to be accurate and reliable. No warranty/guarantee is implied by the recommendations contained herein since the conditions of use; application method, substrate and cleanliness of the substrate are beyond Crown Paints Kenya PLC control. Technology may change with time, necessitating changes to this Technical Data Sheet (TDS). Crown Paints Kenya PLC reserves the right to amend the TDS without any further notice.

It is the responsibility of the user to ensure that the latest TDS is being used for reference.