



## IMPERIAL EPOXY 250

### 100% SOLIDS, TWO-COMPONENT, CYCLO-ALIPHATIC AMINE EPOXY TECHNICAL DATA & APPLICATION INSTRUCTION

#### PRODUCT DESCRIPTION

**Imperial Epoxy 250** is a 100% solids, two component, cyclo-aliphatic amine epoxy system with excellent durability including abrasion resistance, chemical resistance and hot tire resistance. **Imperial Epoxy 250** is a user friendly high performance concrete epoxy system.

#### BENEFITS/FEATURES

- Excellent long term wear
- Excellent chemical resistance
- Excellent resistance to stain

#### RECOMMENDED APPLICATIONS

**Imperial Epoxy 250** is designed for a variety of seamless high build concrete applications. It is an excellent coating for concrete countertops and areas where high performance, abrasion resistance and chemical resistance are required. Also an excellent coating choice for interior decorative concrete.

#### TECHNICAL INFORMATION

Abrasion Resistance.....28.1 mg loss (Tabler Index, ASTM 4060-81, CS-17 Abrasion Wheel, 1000 gram load) Gloss 60.....90-95	Mix Ratio (a/b volume).....2 to 1 ** 19.33# part A (2.0 gal approx) to 8.66# part B (1 gal approx)
Flexibility (1/8" Mandrel).....Pass	Coverage: Dependent on application technique
Hardness - Shore D.....82	Approx: 90 - 100 square feet per gallon @ 16 - 18 mils
Compressive Strength @ Yield (psi).....11,200	Viscosity.....400-600 cps
Tensile Strength (ASTM D638).....6200	Pot Life.....15 - 20 min
Elongation.....7%	Dry Time-Set to Touch (50% R.H. @ 72F).....6 - 8 hrs
Solids % Weight (Federal Spec. TTP-141B).....100%	Dry Time-Recoat (50% R.H. @ 72 F).....10 - 16 hrs
Density lbs/Ga. (Federal Spec. TTP-141B).....9.32	Dry Time-Light Traffic (50% R.H. @ 72F).....14 - 18 hrs
VOC .....< 50 grams per liter	Dry Time-Full Cure (heavy traffic) (50%RH@ 72 F).....7days
	Application temperature.....55-90F

#### CHEMICAL RESISTANCE

Butanol.....C	10% Sodium Hydroxide.....E
Xylene.....C	50% Sodium Hydroxide.....D
1,1,1 trichloroethane.....B	10% Sulfuric Acid.....C
Methanol .....A	70% Sulfuric Acid.....A
Gasoline.....C	5% Acetic Acid.....B
Skydrol B-4.....B	10% HCl (aq).....C
Ethylene Alcohol.....C	
MEK.....A	**A chemical exposure test should always be performed prior to application resistance to ensure satisfactory results are obtainable.

**\*\*Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill,  
D - 72 hour immersion, E - long term immersion.**

#### PRODUCT STORAGE

Store product in an area so as to bring the material to room temperature within the recommended application temperature range before applying. Long term storage should be between 60°F and 90°F.

#### SHELF LIFE & PACKAGING

**Imperial Epoxy 250** has a shelf life up to one year (12 months) in it's original, sealed, unopened container. **Imperial Epoxy 250** is packaged in .75 gallon, 1.5 gallon and 3 gallon kits. 15 gallon kits are available by special order.

**SURFACE PREPARATION:** Shot blasting or diamond grinding to obtain a surface profile of a CSP3 to a CSP5 is recommended. A test should be done to determine that the concrete is dry; this can be done by placing a 4 x 4 plastic sheet on the substrate & taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate should be ready to coat. If moisture is present, perform a more advanced moisture test. If moisture issues below 10 psi exist, prime the surface with Kingdom Products' MVB before applying the Epoxy 250. Apply the **Epoxy 250** to a clean, dry surface, completely free of oil, dirt, grime, wax, detergent or any incompatible paint or coating. A build coat of **Imperial Epoxy 250** is designed to be applied only to a primed surface within the recommended recoat window of the primer.

- If **applying over an existing fully cured & fully adhered coating**, the surface must first be sanded with 80 - 100 grit sandpaper. Clean away all dust from sanding and wipe the surface down with pure Acetone & a clean terry cloth towel.
- If **multiple coats of Imperial Epoxy 250 are required**, apply the second coat as close as possible to the suggested recoat time (see front of data sheet).
- If **recoating outside of the recoat window**, a light sanding using a fine sanding screen will be needed to ensure adequate inner coat adhesion. Clean away all dust from sanding and wipe the surface down with pure Acetone & a clean terry cloth towel.

**PRIMING:** Prime the surface with a thin coat of Imperial Epoxy 1040 or Imperial Epoxy 250 prior to applying your build coat to close up the pores of the concrete and prevent potential outgassing.

**MIXING:** Improper mixing will result in product failure. **NOTE: Epoxy 250 has a 20-30 min Pot Life!!**

- If **mixing less than a full kit**, open Part A and mix it separately with a stir stick or low speed mixer for 3 - 5 minutes to ensure uniform distribution of all ingredients before splitting the kit. **Avoid whipping air into the coating.** (If you are **pigmenting the epoxy**, add the pigment to Part A and mix thoroughly before adding the Part B.) Scrape the sides of the mixing container and pour entire contents into a new clean container.

Pour 2 parts of Part A and 1 part of Part B together and mix slowly for an additional 3-5 minutes (with slow speed mixing equipment) or until the material is thoroughly mixed and homogenous. **Avoid whipping air into the coating. Use Product Immediately!** Pour the mixed material onto the surface to be coated or into a roller pan. This will extend your working time greatly and prevent the coating from overheating in the mixing pail as it reaches the end of its pot life.

**APPLICATION:** Apply the mixed material with a brush, roller, trowel or a notched squeegee or gauge rake to maintain the desired thickness. **DO NOT overapply! DO NOT allow to Puddle!** Epoxy 250 is designed to be built up in lifts and not to be applied in one thick coat. If concrete conditions or aggressive mixing cause outgassing or air entrapment, then a spiked roller will need to be used to remove the bubbles, prior to the coating tacking up. While applying keep a wet edge to prevent streaking. It is recommended to work in sections usually using control joints as dividers. If the material becomes thick while applying, stop immediately & discard the mixed material. At this point it has reached the end of its working time. **PLEASE NOTE:** Applying Imperial Epoxy outside of the suggested parameters may result in job failure. It is always recommended to test the product in a small, inconspicuous area (on the same concrete substrate) for desired results prior to application.

## CLEAN-UP & PRODUCT REMOVAL

Use Xylene or MEK. Dispose of containers in accordance with local and federal regulations. Dried, cured epoxy may be removed by chemical means including sanding, shot blasting, etc.

## PRECAUTIONS AND LIMITATIONS

- All new concrete must be cured for at least 28 days prior to application.
- Coverage rates depend upon many conditions including application method, surface porosity, applicator, etc.
- Be aware that this product may be slippery when wet. Anti Slip additives may be needed to reduce surface slip hazards.
- **Imperial Epoxy 250** may darken the surface of many new and existing concrete substrates. Test prior to use.
- Product will yellow in the presence of UV light or other forms of light such as sodium vapor lighting.
- Physical properties listed on this technical data sheet are typical values not specifications.
- If applying over an existing coating, proper adhesion and compatibility tests are essential.

## SPECIAL NOTES

Please read Safety Data Sheet (SDS) and Technical Data Sheet (TDS) in full, prior to use. Substrate preparation, application, performance & all other liabilities are strictly the end users responsibility. Kingdom Products offers no guarantee, warranty or other claims to the success or results of the job in this circumstance.