



## IMPERIAL EPOXY 250

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

#### 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 low odor, user friendly high-performance concrete flooring system.

#### BENEFITS/FEATURES

- Tintable
- Excellent long term wear
- Excellent chemical resistance
- Excellent stain resistance
- VOC compliant for most of US and Canada
- Can be used as base & build coat for Metallics
- Use for a variety of seamless, high-build concrete flooring applications
- Enhanced flow and leveling properties

#### RECOMMENDED APPLICATIONS

- Seamless applications like Flake, Quartz and Metallics
- Laboratories
- Cafeterias
- Warehouses
- Aircraft Hangars
- Garages
- Auto Service Centers

#### TECHNICAL INFORMATION

Solids/Active Content (% by weight) .....	100%	Appearance (Dry) .....	Clear and High Gloss
VOC .....	< 50 g / L	Dry Time - Recoat .....	10 - 16 hours
Mix Ratio (a/b) .....	2 : 1	Dry Time - Tack Free .....	6 - 8 hours
Application Temperature .....	50°F - 80°F	Dry Time - Foot Traffic .....	14 - 18 hours
Pot Life .....	15 - 20 min	Dry Time - Heavy Traffic .....	2 - 7 days

*\*Above information is based on lab temperatures of 70°F to 72°F at 50% relative humidity. Using this product outside of those parameters will affect the accuracy of the information above. Always test prior to use!*

#### COVERAGE RATES

<b>First Coat</b> - direct to concrete	100 - 125 sq ft per gal
<b>Second Coat</b> - over existing coating	75 - 125 sq ft per gal
<b>Metallic Coat</b> - over existing coating	75 - 100 sq ft per gal

*\*Coverage rates vary depending upon surface porosity, texture, application method and prior coating application. Excessive build should be avoided.*

#### SPECIFICATIONS & COMPLIANCES

- Dried Coating is USDA accepted
- Meets OTC, CARB, LADCO & SCAQMD VOC restrictions.

#### 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 3/4 gallon, 1.5 gallon and 3 gallon kits. 15 gallon kits are also available by special order.

**MOISTURE TESTING** Concrete floors, especially those not poured over a proper vapor barrier, are subject to possible moisture vapor transmission which may result in bubbling and/or failure of high performance coatings. Basic moisture testing can be performed by placing a 4' x 4' sheet of plastic on the concrete surface and securely taping it down on all edges. If after 24 hours the concrete is still dry below the plastic, the surface should be ready to coat. If any moisture is present, perform a calcium chloride and relative humidity probe to determine if excessive levels of vapor emissions are present before applying any coatings. If moisture issues below 10 psi exist, prime the surface with Kingdom Products' MVB before applying the Epoxy 250.

**SURFACE PREPARATION/RECOATING:** Concrete must be cured 28 days and it must be deemed structurally sound and completely clean and dry. It is recommended to prepare the raw concrete surface by mechanical means such as shot blasting or diamond grinding with 30 grit or coarser diamonds to achieve a CSP-2 to CSP-3 profile. (If using a thin mil system like Acid Stain or Flash Dye, an 80 grit diamond may be acceptable, to minimize scratches in the finish.) Vacuum concrete surface several times until dust thoroughly removed.

If recoating or applying over an existing, fully bonded coating that is outside its recommended recoat window, the surface should be sanded thoroughly with a 60 - 120 grit sanding screen or coarser, until the surface is completely dulled with scratches. Vacuum dust thoroughly, rinse clean and remove excess water with a wet/dry vacuum or floor scrubber. Allow surface to dry completely prior to application of coating. Where applicable and with adequate ventilation, wipe the surface with pure Acetone and a microfiber dust mop. CAUTION: Acetone is extremely flammable! Take all safety precautions.

Substrate, air and material temperature must be between 50°F and 80°F. If applied outside of these limits the coating may not achieve adequate film formation and may have excessive air entrapment, bubbles, blushing or hazing. Higher temperatures and excessive humidity will speed the cure rate of the product and cooler temperatures and lower humidity will slow it down.

**PRIMING:** A build coat of **Imperial Epoxy 250** is designed to be applied over a primed surface within the recommended recoat window of the primer. 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.

**TINTING:** Tint using EpoPack (solid color = one pint — metallics = 1 quart per 3 gal kit of prepared Epoxy 250 ). Add the pigment to Part A and drill mix for 2 - 3 minutes, prior to adding to Part B.

**MIXING:** Improper mixing will result in product failure. Mix Part A and Part B separately with the a stir stick, low speed mixer or vigorously shake container prior to blending, to ensure uniform distribution of all ingredients. This is especially important when mixing less than a full kit. In a clean container, blend 2 Parts A and 1 Part B using a drill mixer for 2 - 3 minutes. Avoid creating a vortex which could introduce air and/or moisture content into the mixture. Do not mix more material than can be applied within the usable pot life time frame. DO NOT THIN! Discard all mixed material that has not been used within this time frame.

**APPLICATION:** Immediately pour the mixed material out onto the surface. 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. Use a flat flexible or a notched squeegee to spread the material. 1/8" (8 - 12 mil) over raw concrete and 3/16" (15 - 20 mil) over a coated surface. Back roll clear and solid color epoxy using a 3/8" nap shedless roller or 3/8" foam roller. 18" rollers are recommended for any surface to speed up application time and reduce roller marks. **DO NOT overapply or allow to puddle!** While applying keep a wet edge to prevent streaking. It is recommended to work in sections usually using control joints as dividers. 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.

## CLEAN-UP & PRODUCT REMOVAL

Use 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

- This product will freeze during storage. Store at temperatures above 40°F.
- All HVAC ventilation ducts should be somehow blocked prior to application so solvent fumes are not distributed.
- Use proper ventilation while applying and for hours after application to ensure fumes are removed.
- It is not recommended to apply product over any floor adhesives, i.e. carpet and tile.
- This product performs best when applied in thin coats, built up in lifts, not one heavy coat.
- Be aware that this product may be slippery when wet. Anti-Skid additives may be needed to reduce surface slip hazards.
- All new concrete must be cured for at least 28 days prior to application.
- It is not recommended to thin this product. Improper thinning may cause delamination and other performance issues.
- This product will darken the surface of many new and existing concrete substrates. Test prior to use.
- This product is not UV stable and should not be used in exterior applications or in areas exposed to excessive sunlight.
- This product, specifically Part B, is corrosive. Wear proper safety equipment while handling.

## SPECIAL NOTES

Please read Safety Data Sheet (SDS) and Technical Data Sheet (TDS) and Warranty Information, in full, prior to use. Substrate preparation, application, performance & all other liabilities fall strictly on the end user.