



## IMPERIAL POLY 250

### TWO COMPONENT SOLVENT BASED ACRYLIC URETHANE TECHNICAL DATA & APPLICATION INSTRUCTION

#### PRODUCT DESCRIPTION

**Imperial Poly 250** is a clear, UV Resistant, two component, low viscosity, solvent based acrylic urethane. **Imperial Poly 250** provides a tough, scratch resistant, medium to high gloss protective coating for interior and exterior concrete surfaces.

#### BENEFITS/FEATURES

- Excellent Long Term Wear
- Enhanced chemical and stain resistance
- UV Stable
- Can be tinted/pigmented
- Excellent Top Coat for Epoxy systems
- VOC Compliant

#### RECOMMENDED APPLICATIONS

**Imperial Poly 250** is recommended for use on interior or exterior industrial and decorative concrete surfaces in commercial, retail, and high traffic areas.

- Garages
- Cafeterias
- Aircraft Hangars
- Auto Service Centers
- Warehouses
- Laboratories

#### TECHNICAL INFORMATION

Solids % Wt.....	51% +/- 1	VOC.....	< 250 grams/liter
Mix Ratio (a/b volume).....	.4 to 1	Pot Life.....	30 - 45 minutes
Dry Time-Tack Free.....	2 - 3 hours	Appearance (Wet).....	Clear (may show slight haze)
Dry Time-Recoat.....	4 - 8 hours	Appearance (Dry).....	Clear (may show slight haze)
Dry Time-Foot Traffic.....	24 hours	Dry Time-Heavy Traffic.....	5 - 7 days
Dry Time-Full Cure.....	7 days	Application Temperature.....	50°F - 80°F

#### CHEMICAL & STAIN RESISTANCE (ASTM D-1308 24 HOUR IMMERSION)

Wine.....	No Effect	Urine.....	No Effect
Motor Oil.....	No Effect	Gasoline.....	No Effect
Transmission Fluid.....	No Effect	Brake Fluid.....	No Effect
Skydrol.....	No Effect	10% Hydrochloric Acid.....	No Effect
Xylene.....	No Effect	10% Sulphuric Acid.....	No Effect
MEK.....	No Effect	10% Acetic Acid.....	No Effect

*\*\*Please note that air and concrete temperatures and relative humidity will alter drying times. Follow recommended coverage rates for best results. Information above is based on lab temperatures of 70° F- 72° F @ 50% relative humidity.*

#### SPECIFICATIONS/COMPLIANCES

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

#### APPROXIMATE COVERAGE RATES

**Cured (unsealed) concrete** 250-300 sq ft/gal      **Previously Coated Floor** 300 sq ft/gal

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

#### SHELF LIFE & PACKAGING

**Imperial Poly 250** has a shelf life of up to one year in it's original, sealed, unopened container. **Imperial Poly 250** is packaged in 1.25 gallon and 5 gallon kits.

#### CLEAN-UP & PRODUCT REMOVAL

Use Xylene. Dispose of containers in accordance with local and federal regulations. Dried, cured urethane may be removed with a commercial stripper like Kingdom Products' Nock-Off, but recommended removal is by way of mechanical means, including sanding, shot blasting, etc.

**RAW CONCRETE** The concrete must be fully cured a minimum of 28 days.

**Moisture Testing** Concrete floors, especially those not poured over a moisture vapor barrier (plastic) are subject to possible moisture vapor transmission which will likely 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 the concrete is still dry below the plastic, the surface should be ready to coat. If moisture is present, perform a calcium chloride and relative humidity probe test to determine if excessive levels of vapor emissions are present before applying any coatings.

The surface must be mechanically and structurally sound, thoroughly clean of debris and completely dry. It is recommended to prepare the 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. Vacuum concrete surface several times until dust is thoroughly removed. Rinse with clean water 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! Follow all safety precautions.

Light shot blasting or diamond grinding is recommended for superior adhesion, but if mechanical means of preparation are not suitable AND only if the surface is completely un-sealed and bare concrete, it is recommended to acid etch the surface with 4 parts water to 1 part Muriatic acid (by volume). Do this as many times as necessary to achieve the desired floor profile. Then rinse the surface thoroughly with a neutralizing solution of 1 cup ammonia to 5 gallons clean water to achieve a neutral substrate of 7 pH. Allow the surface to dry completely prior to coating application.

**COATED CONCRETE** If 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 until the surface is completely dulled with scratches. Remove all dust and with adequate ventilation, wipe the surface with pure Acetone and a microfiber dust mop. **CAUTION:** Acetone is extremely flammable! Follow all safety precautions.

Avoid applying coating in high humidity/moisture atmospheres. The substrate temperature must be no less than 55°F and not to exceed 80°F. If applied outside these limits the coating may not achieve adequate film formation and may have excessive air entrapment, bubbles, blushing or hazing.

**MIXING** Do not mix more material than can be applied within the 30 - 45 minute pot life. Before mixing, stir both Part A and Part B **separately** using a stir stick, low speed mixer or by vigorously shaking the containers. If pigmenting the Poly 250, use *Kingdom Products' Urapack-S*. To produce a solid, opaque finish, use 9 - 16 oz of pigment for each prepared gallon of Poly 250. Add the pigment to Part A and drill mix thoroughly for 2 - 3 minutes before mixing in the Part B. In a clean mixing container, blend exactly 4 parts of A and 1 part of B using a drill mixer for 2 - 3 minutes. Avoid creating a vortex in the material which could introduce air or moisture content to the mixture. Do Not Thin!

**APPLICATION** Using a 3/8" nap, shed-free, phenolic core roller. Dip & roll the mixed material from a roller pan. 18" rollers are recommended to speed up application time and to reduce roller marks. Start by placing the wet roller at one corner of a 4' x 4' square and roll the material diagonally to the opposite corner applying no pressure to the roller. Spread the material across that square only and immediately back-roll to even out material and roller lines. Keeping a wet edge, proceed with the same technique. Adjust the size of your square as necessary. If the material becomes thick while applying and sticks to the roller, stop applying the material and discard it as it has reached the extent of its useable pot life. Do not allow to puddle. Use a bristle brush to remove excess coating in joints. If a second coat or a recoat is necessary and the recoat time exceeds 24 hours, the surface should be sanded thoroughly with a 60-120 grit sanding screen until the surface is completely dulled with scratches. Remove all dust and with adequate ventilation, wipe the surface with pure Acetone and a microfiber dust mop. **CAUTION:** Acetone is extremely flammable!

## PRECAUTIONS AND LIMITATIONS

- **Poly 250** will not freeze during storage, however allow temperature to rise to a minimum 50°F prior to application.
- All HVAC ventilation ducts should be somehow blocked prior to application so solvents fumes are not distributed.
- Keep away from open flames. **Poly 250** is flammable and is very susceptible to ignition.
- It is not recommended to apply **Poly 250** over floor adhesives due to inadequate adhesion.
- Coverage rates depend upon many conditions including application method, surface porosity, applicator, etc.
- **Poly 250** should be applied in medium to thin coats. Do not allow to puddle.
- **Poly 250** will be slippery when wet. Use *Kingdom Products' Grip-Fine*, anti-skid additive to reduce surface slip hazards.
- **Poly 250** contains harsh vapors. Adequate ventilation and proper respiratory protection is necessary.
- Do not apply **Poly 250** over wet or damp surfaces. Moisture tests may be necessary prior to application.
- **Poly 250** will darken the surface of many new and existing concrete slabs. Test prior to use.

## SPECIAL NOTES

Please consult Safety Data Sheet (SDS) and Technical Data Sheets (TDS) and read Warranty information prior to use. **FOR PROFESSIONAL USE ONLY!** Always install a test area or job site mock up for owner approval of acceptable color, texture, finish adhesion and any other critical requirements prior to proceeding with the installation. Verify that the most current versions of the Technical Data Sheets (TDS) and installation guidelines are being utilized.