# POLYURETHANE 100 VOC

PRODUCT DATA SHEET

## PRODUCT DESCRIPTION

**APF Polyurethane 100 VOC** is a two component, high solids, aliphatic polyurethane coating formulated to comply with California and other local VOC regulations. Offering a combination of unique performance properties, **APF Polyurethane 100 VOC** produces a high-gloss protective film which is very hard, flexible, and impact resistant. **APF Polyurethane 100 VOC** features excellent resistance to abrasion and scratching. **APF Polyurethane 100 VOC** exhibits durability in exterior applications, an easily cleaned surface, and excellent resistance to a broad range of chemicals. Formulated with an integral UV additive that provides excellent performance and resistance to sunlight and strong artificial light. A curing accelerator is available when rapid project turnaround is desired (required for Satin finish).

**APF Polyurethane 100 VOC** is designed as a high-performance topcoat for protective coating and seamless flooring applications. It provides maximum cleanability and stain resistance when used as a finish coat in color chip flooring or epoxy-quartz flooring. Available in optional Satin finish (requires accelerator.)

## ADVANTAGES

- Resistant to fuels and many chemicals
- Hard, high-gloss, easily cleaned surface
- Graffiti resistant when used as wall surface

## USES

- Finish for color quartz and vinyl mosaic flake systems
- Automotive facilities
- Aircraft Hangars
- Clean Rooms

## COLORS

Factory Supplied 18 Standard Colors & Clear

## PACKAGING

Supplied in complete A+B 1.5 gallon (5.7 L) or 15 gallon (56.8 L) total volume mixed units. Use only as complete mixed unit, do not break down into partial mixes. Mix ratio 2A : 1B

## TECHNICAL DATA

| | |
|---|---|
| Mixing Ratio by Volume | 2A : 1B |
| VOC Clear Satin | 45 g/l |
| VOC Pigmented Satin | 60 g/l |
| Solids Content, by Volume | 45.6% |
| Mar Resistance, ASTM D5178 | 130 |
| Gloss (60 degrees) ASTM D523 - 14 | 90 - 95 |
| Satin finish | 50-60 |
| Hardness ASTM D4366 (Konig) | 122 |
| Tabor Abrasion (1000 gm. load 1000 cycles, CS 17 wheel) | 31 mg Loss |
| Flexibility ASTM D222 | Passes 1/8-inch |
| Impact Resistance ASTM D2794 | 42 in-lb, Passes |
| Re-coat Final Flooring Application | ~5 - 6 Hours |
| Dry Times (77ºF) | |
| Dry To Touch | ~4 - 6 Hours |
| Recoat | ~10 - 12 Hours |
| Light Traffic | ~24 Hours |
| Full Traffic | ~7 Days |

Higher temperatures will shorten cure time. Lower temperatures will increase cure time.

## CONCRETE MOISTURE

It is the applicators responsibility to Test for concrete moisture in accordance with ASTM F2170–19. If moisture is indicated to be in excess of 85%, apply APF VaporSolve® system in accordance with the published technical data sheet. Consult APF Technical Service for further information.

## SURFACE PREPARATION

*Concrete must be cured for at least 30 days, have a minimum compressive strength of 3000 psi, be clean, structurally sound, and free of wax, loose paint or curing compounds. Concrete should be properly prepared to achieve a surface minimum texture of ICRI/CSP 3 - 4. Refer to ICRI Technical Guidelines 310-330 Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair. Acid etching is not recommended and will void Manufacturer's war-*

## PREPARATION, cont.

*ranty. Carefully follow the guidelines listed in the APF published application instructions available at www.apfepoxy.com. Vacuum the prepared concrete surface to remove all dust. Previously coated surfaces that are soundly adhered must be mechanically cleaned and abraded to achieve uniformly gloss-free, open texture.*

## MIXING

Mix only that amount of material that can be used in a 2 hour period at 77ºF. Higher temperatures and the addition of accelerator will reduce work time. In hot weather, mix smaller batches. If using the pigmented system, thoroughly premix part A before adding part B. Mixing ratio is 2 parts A to 1 part B. For Satin version, Premix Parts A & B with separate mixing paddles to ensure no cross contamination. Proportion the amounts carefully and mix for two full minutes using a slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Reseal partially used containers completely after use. Avoid contamination with moisture. B component will react with moisture.

## APPLICATION

**APF Polyurethane 100 VOC** may be applied by brush or roller. Apply at 250-350 sq. ft. per gallon with quality 3/8- or 1/4-inch nap solvent resistant core roller as a finish coat over primed concrete. If using the satin version of this material, it is **very important** to achieve a uniform application rate of 300 - 350 sq. ft. per gallon. Heavier films will be glossier, thinner applications will be flatter.

## LIMITATIONS

- Use only on primed substrates. Do not apply directly to concrete.
- Use of satin material **requires** the addition of accelerator during mixing.
- Prior to application, measure and confirm that ambient temperature and humidity conditions are at least 5ºF over dew point.
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.
- Work life is considerably shortened over 90 degrees F.
- Do not apply material if the humidity is over 80% and/or poor ventilation/limited air changes. Improper cure will result.

## SHELF LIFE

One [1] year from date of manufacture, in original unopened container. Store away from heat sources. Store between 50ºF and 85ºF (10ºC – 30ºC). Do not allow to freeze. Frozen material is unusable and must be properly disposed of.

## HANDLING & SAFETY

Material is combustible. Extinguish all flames, pilot lights, and electric motors until all vapors are gone and the coating is hard. The vapor is harmful. Use only with adequate ventilation and appropriate cartridge-type respirator as application conditions require. Avoid contact with skin; wear protective gloves. Application personal must read and fully understand product Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com