

# Poly-Star 350

## 350 Gram/Liter VOC Polyurethane Concrete Finish



Poly-Star 350 offers the performance advantages of rapid build, reasonable dry time, superior durability, and high gloss found in Poly-Star 50, in a low VOC formulation. Poly-Star 350 is formulated for use on all interior concrete and stone floors. Poly-Star 350's full body provides rapid film build that dries to a hard, glossy finish and provides excellent resistance to abrasion, wearing, dusting and chemicals. Poly Star 350 complies with more stringent 350 gram/liter VOC regulations prevalent in the Northeast States who are members of the Ozone Transport Commission (OTC) and California.

### APPLICATION & MAINTENANCE

**NOTE:** To meet the new VOC regulations, the chemistry used to formulate 350 gram/liter urethane finishes presents some different performance characteristics than the 450 gram/liter finishes that many floor care professionals have been used to. The use of new VOC exempt solvents, increased concentrations of urethane resins and new drying systems, has resulted in finishes with higher solids contents, increased body and different application and drying characteristics. The new metallic drying systems integrate with the urethane resins forming a chemical bond. Once they are added to the urethane resin this bonding process takes up to 10 days. Although urethanes using metallic dryers will dry positively prior to the 10 day "sweating in period", they will dry optimally and under the broadest range of environmental conditions if they are allowed to stand for 10 days after the date of manufacture, before they are applied. Also, the increased solids content and body of these finishes makes them apply thicker, so care must be taken to apply the thinnest coat possible. This requires the use of weighted drag bars or applying downward pressure to the handles of light weight bars, or more carefully spreading of the finish when using lambswool, flock applicators or brushes. Heavy coats can result in the urethane drying at the surface, trapping solvent in the finish film and significantly increasing the curing time. Other factors that can substantially extend curing times are cold floor temperatures and high humidity conditions. Evidence of delayed drying includes increased scuffing, scratching, gloss reduction and in severe situations movement and wrinkling of the urethane film. Complete curing requires approximately 2 weeks and finish will be subject to increased scuffing and marking until complete curing has occurred.

If the composition or origin of an existing finish is unknown, it is strongly recommended that a test patch be applied to determine compatibility and adequate adhesion characteristics. Applying Poly Star 350 to floors with a temperature lower than 65° F will result in extended drying and curing times, and should be avoided.

**NEW FLOORS:** Concrete floors should be allowed to cure a minimum of thirty days. Floor surfaces must be free of any release agents, curing compounds, salts or efflorescence before coating.

**APPLICATION TO BARE CONCRETE:** Floor surface temperature should be at least 65°F prior to application of finish. Areas with soaked in oil, automotive fluids or grease should be spot cleaned first with #820 Citru-Gest. Scrub surface with #156 Deep Impact or #255 All Prep to remove regular concentrations of light oils soils and dirt. Lightly damp the surface with clean water then etch with #111E Prepare. Allow Prepare to work until foaming stops then rinse thoroughly with clean water. When thoroughly dry (12-24 hours), apply Poly Star 350 in a *thin, even coat*, with a lamb's wool, T/ Drag Bar or other appropriate applicator. The initial coat will yield 400-500 square feet per gallon coverage. Allow finish to thoroughly dry, minimum 12 to 16 hours under normal drying conditions. Apply no more than one coat per day. Cold floor temperatures or high humidity can significantly increase drying time. Under warm, low humidity conditions, floors may be opened to light traffic after 72 hours. Adverse drying conditions will extend the amount of time necessary before opening the floor to traffic. Complete curing requires 2 weeks.

## APPLICATION & MAINTENANCE (continued)

**PREVIOUSLY SEALED FLOORS IN GOOD CONDITION:** Clean heavily soiled floors thoroughly per previous instruction. Allow the floor to dry, then screen with an 100-120 grit screen disk. Wet screening using a solution of #255 All Prep diluted 4 ounces per gallon of water, will reduce dusting and clean the floor. Floors may also be dry screened. Dry screening can be more effective at removing deeper scratches and heavy oxidation. Thoroughly sweep or vacuum the floor to remove wood dust and dirt. Tack rag the floor with Waterless Cleaner to remove any fine dirt or dust left from screening.

**APPLYING THE FINISH:** Apply finish only after floor is thoroughly clean and dry. Apply finish with a lamb's wool applicator, brush or weighted drag/t-bar. Pour finish into an applicator pan if applying with a lamb's wool or brush, or a plastic watering can for application with a drag/t-bar. Apply finish in a **thin**, uniform coat. Generally, one coat is sufficient to provide a positive appearance and performance in recoating procedures. Under warm, low humidity conditions allow a minimum of 12-16 hours between coats. Apply no more than one coat per day. Cold floor temperatures or high humidity can significantly increase drying time. Under warm, low humidity conditions, floors may be opened to light traffic after 72 hours. Adverse drying conditions will extend the amount of time necessary before opening the floor to traffic. Complete curing requires 2 weeks.

**BUFFING BETWEEN COATS:** Floors may be screened between coats with a 120 grit or finer screen to ensure adhesion and to remove raised grains in wood and provide a smoother finished appearance. Sweep or vacuum the floor to remove large quantities of wood and urethane dust. Tack rag floor with Waterless Cleaner to remove fine dust. Allow floor to dry thoroughly, then apply the next coat.

### SPECIFICATIONS

Color	1 - 3 / Gardner
Solids	54%
Weight Per Gallon	7.2-7.3
Gloss @ 60° w/3 coats	90
Hardness	40 / Sward
Viscosity	A-1 / Gardner
Solvents	Mineral Spirits
Flash Point	105°F minimum
Dry Time	Tack free-6-8 hours
Water Resistant	24 hours-No effect
Alcohol	1 hour-No effect
Gasoline	24 hours-No effect
Caustic 5%	2 hours-No effect
Soap Resistance	24 hours-No effect
Slip Resistance	(ASTM F-609) 0.6 Minimum with Neolite test feet
Coverage	400 - 500 Ft. <sup>2</sup> /Gallon
VOC	<350 grams/liter

### SAFETY INFORMATION

Health	1
Flammability	2
Reactivity	0
Personal Protection	B

**Read Safety Data Sheet thoroughly before using.**

FLAMMABLE



IRRITANT



**WARNING: Category 3 Flammable Liquid.** Flash Point - TCC 104° F. Contains Stoddard Solvent CAS #8052-41-3. Keep away from heat and open flame. Irritating to eyes and skin. Do not get in eyes. Minimize contact with skin or clothing. Minimize breathing mists or vapors. Use only with adequate ventilation. Wash after using. Keep container closed when not in use. Do not reuse empty container.

**FIRST AID: For eyes:** Flush with water until irritation stops. Seek immediate medical treatment. **For skin:** wash with soap and water. If skin irritation occurs, seek medical treatment. **For ingestion:** Do not induce vomiting. Get immediate medical treatment. **For inhalation:** If overcome or affected, remove victim to fresh air. Get immediate medical attention.



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