Permite

high performance coatings and linings

Engineered Chemical Coatings Since 1921

PCS-566
POLYESTER URETHANE

DESCRIPTION: A two-part polyester aliphatic polyurethane coating. Polyester is used rather than acrylic for increased chemical resistance. It has outstanding resistance to chemicals and solvents as well as excellent gloss and color retention on outdoor exposure. The exceptional combination of surface hardness and flexibility is due to the isocyanate prepolymer portion of the coating. At the surface of the film (air interface), the prepolymer reacts with the moisture present in the atmosphere to produce a clear, stable, ultra-thin polyurea film which is extremely hard and abrasion resistant.

PCS-566 is nearly identical to Permaglas 506 in every regard as to performance properties. It may be applied by brush and roll, along with conventional and airless spray.

USES: Principal uses are as a finish coat where both chemical and weather resistance are necessary. It is also recommended as a flooring material where chemical and/or abrasion resistance is required.

SURFACE PREPARATION: PCS-566 may be applied directly to glass reinforced polyester or epoxy surfaces if the surface is clean and free of mold release compounds. For use over steel, aluminum, galvanize, masonry, or other surfaces, a specific primer or surface preparation is required. Consult **Permite** for details.

MIXING: Do not mix until the surface is properly prepared and equipment is clean and ready for use. Mix 1 part of the BASE component with 1 part of HARDENER for 3-5 minutes with a power mixer to insure proper blending. No induction period is required before application.

THINNING: Thin with approximately 1 pint of Reducer #130 per gallon of mixed material for spray application. The viscosity of the material should be 28-32 seconds in a #2 Zahn cup for best results. No reduction is required for brush or roll application.

(Continued)

COLOR: Standard colors. Special colors available on request.

SOLIDS CONTENT: For white and pastels, 53% by volume, 65 % by weight; slightly less for deep colors.

VOC AS SUPPLIED: 3.45 lbs/gallon

THEORETICAL COVERAGE: 850 sq. ft. per mil per gallon

NUMBER OF COMPONENTS: Two

MIXING RATIO: 1 volume Base to 1 volume Hardener

INDUCTION PERIOD: Not required.

POT LIFE: 3-4 hours at 77° F

APPLICATION: Conventional or airless spray; brush; or roll

NUMBER OF COATS: 1 or 2 coats at 1½-3 mils DFT depending on service.

APPLICATION TEMPERATURE: 45° F to 90° F

DRY TIME: To touch, 2-4 hours; to tape, 4-8 hours. Must be recoated or stenciled within 48 hours.

SERVICE TEMPERATURE: -20° F to 180° F continuous; to 280° F intermittent with some yellowing.

PACKAGING: 2 & 10 gallon kits

SHELF LIFE: Minimum of 12 months in unopened containers.

DO NOT STORE ABOVE 90° F.

Manufacturing and Executive Offices:
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CAUTION: This product is moisture sensitive until cured. Use care when mixing product with air driven mixers; do not allow water condensate to contaminate material. Use oil and moisture traps on all incoming air lines to spray equipment.

APPLICATION: Flush all equipment thoroughly with a urethane grade solvent before use. **Conventional spray:** use Binks #62 gun, #63 tip and #66 air cap, or equivalent. Maintain pot pressure at 10-15 psi and approximately 30 psi atomizing air. **Airless spray:** a 25:1 ratio or higher pump is recommended to insure freedom from pulsations, tip size should be 0.011-0.013 inch with fluid pressure around 1000 psi. Adjust for proper atomization. The proper technique is to apply a tack coat to the entire surface with special attention given to all difficult areas, such as corners and/or edges. This should be followed immediately by a full coat applied using a cross-hatch pattern with a 50% overlap. Do not apply when the temperature is 45° F and falling. Surface temperatures over 120° F can cause solvent "popping."

CLEAN UP: Clean up immediately after use with **Reducer #130 or #76.** Do not allow material to set up in paint lines or equipment.

CURE & RECOAT TIMES: To touch, 2 hours; to tape, 4-5 hours. Must be recoated or stenciled within 48 hours.

HEAT RESISTANCE: The recommended maximum temperature for continuous service is 180° F; however if some discoloration can be tolerated, higher temperatures can be withstood without serious embrittlement. **PCS-566** has been tested against a number of conventional coatings such as alkyds, chlorinated rubber, siliconized alkyds, and pure silicone types. After 1500 hours at 250 ° F, **PCS-566** was virtually unaffected in hardness; however, its flexibility had decreased by approximately 10 %.

CHEMICAL RESISTANCE: Consult **Permite** for specific recommendations.

WARRANTY: Permite warrants that **PCS-566** will be identical in chemical and physical properties from batch to batch within the specification limits of the raw materials used in their manufacture.

CAUTIONS: Flammable mixture. Contains solvents and isocyanates. Individuals with lung or breathing problems or prior reaction to isocyanates must NOT BE EXPOSED to VAPOR or SPRAY MIST. Keep away from heat, sparks, and flame. Use only with adequate ventilation. AVOID PROLONGED BREATHING OF VAPORS. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. Keep containers closed when not in use. If used in confined areas, observe the following precautions to prevent hazards of fire or explosions or damage to health: (1) circulate adequate fresh air continuously during application and drying; (2) use fresh air masks and explosion-proof equipment; (3) prohibit all flames, sparks, welding, and smoking near area. **If swallowed, do not induce vomiting.** Call a physician immediately. For eye contact, flush with lots of water. In case of skin contact, wash thoroughly with soap and water.

See material safety data sheets for full precautions prior to use.

PCS-566 is intended for INDUSTRIAL USE ONLY.