

# USP® 400 LOW VOC BONDING ADHESIVE

**Description:** USP® 400 Low VOC Bonding Adhesive is a high quality Low VOC based contact adhesive designed for bonding USP® EV-PLUS, USP® FB EV-PLUS or USP® PVC Single Ply membrane and flashings to horizontal and vertical substrates. USP® 400 Low VOC Bonding Adhesive provides good initial tack and dries quickly and is designed to meet all VOC restrictions and regulations in the USA.

**Use:** Intended for bonding USP® EV-PLUS, USP® FB EV-PLUS or USP® PVC Single Ply membrane and flashings to horizontal and vertical substrates.

**Application Method:** USP® 400 Low VOC Bonding Adhesive is applied by brush or 3/8" solvent resistant nap roller. Temperatures should be between 45°F and 100°F, however; best results are achieved at temperatures of 75°F. Adhesive must be hand stirred to achieve a homogenous mixture prior to application. DO NOT use electrical equipment to mix the adhesive. Apply adhesive at the rate of 60 square feet per ½ gallon to both substrate and backside of membrane for a total application rate of 60 square feet per gallon of membrane coverage.

**Surface Preparation:** All surfaces to be adhered must be clean, dry and free from any foreign matter, such as oil, grease, dirt or any debris that could inhibit the bonding capabilities of the adhesive.

**Application Instructions:** Apply USP® 400 Low VOC Bonding Adhesive according to the following instructions: Hand stir well, do not thin. Do not use electrical equipment or open flame near the adhesive. Adhesive is EXTREMELY FLAMMABLE. Observe all cautions and warnings when using this product. It is required that the ambient air temperature is above 45°F (7.2°C) for the use of adhesives. The deck surface must be clean, dry, smooth and free of any foreign materials, grease or oil. Do not use in direct contact with polystyrene foam. Apply a smooth, even coating of USP® 400 Low VOC Bonding Adhesive at the rate of 60 square feet per ½ gallon per surface, so that approximately 60 square feet of membrane is applied per gallon of adhesive. The coverage will vary depending on the porosity of the substrate surface. Application of adhesive should be with a 3/8' medium nap solvent resistant roller. When the adhesive on the membrane has dried sufficiently to produce adhesive legs or strings with a light touch of a dry finger, the coated membrane shall be rolled onto the previously coated substrate in such a manner as to eliminate wrinkles and trapped air. If the adhesive on either surface has dried excessively, then the surface in question must be recoated with adhesive. The

## Product Data Sheet

adhesive must show complete transfer between the substrate and membrane surfaces when peeled back as evidenced by adhesive "legs and strings." Apply adequate pressure to ensure good contact between the substrate and the membrane. Always broom in membrane to ensure maximum contact between membrane and adhesive. In some cases, it may be necessary to use a lawn roller. Complete all seams of the flashing membrane by the hot air welding method. Refer to USP® Single Ply Roofing Systems Guide Specifications, Detail Drawings and Technical Bulletins for instructions.

**Coverage:** Coverage rate is approximately 60 sq. ft. per ½ gallon per surface, depending on the absorbency of the substrate. Note: Increased rates of application will prolong the curing process.

### Product Data: USP® 400 Low VOC Bonding Adhesive (typical)

Item Code: SP-400-VOC-BA

Color: Natural

Adhesive Base: Synthetic polymer

Solvent: Ketone blend

Viscosity: 1,800 - 2,400 cps @ 77°F

% Solids: 24% +/- 1%.

VOC: 250 g/l max

Weight per gallon: 7.08 lbs/ gal

Flash Point (TCC) < 0°F (-18°C)

**Packaging:** Available in 5 gallon pails. Pail weight approximately 50 lbs.

**Clean Up:** Keep containers covered when not in use. Use USP® Natural Solvent Cleaner for clean up.

**Ventilation** – Cover rooftop air intake vents when applying the adhesive - to minimize the solvent odor. Use with adequate ventilation and close containers when not in use. If TLV (Total Level of Vapor) is exceeded, respirators are required (NIOSH/MSHA). Inhalation of high vapor concentration may result in headaches and/or dizziness. Remove individual to fresh air and administer oxygen if breathing is difficult. If breathing has stopped, administer artificial respiration, keep victim warm and order emergency medical attention immediately.

**Compatibility & Limitations:** Compatible with concrete, masonry, and wood flashing substrates. Do not use on wet or damp surfaces, directly over surfaces previously covered with coal tar products. Do

not use with EPS, or XPS (polystyrene) insulations or any other solvent sensitive insulation.

**Shelf Life:** 12 months when stored between 60°F (16°C) and 80°F (27°C) in unopened containers and out of direct sunlight.

**KEEP OUT OF THE REACH OF CHILDREN.** For professional use only. Use only with approved equipment sale to consumer is violation of federal law. If you cannot read, or do not understand, all directions, cautions and warnings, do not use this product. Read MSDS prior to use.

**Caution:** USP® 400 Low VOC Bonding Adhesive is extremely flammable and must be kept away from heat, sparks, open flame and any source of ignition. Adhesive should be stored in a dry area protected from weather and extreme temperatures. Use only in well-ventilated areas. Keep out of the reach of children. Observe normal safeguards for storing and handling of this product prior to and during application. Adhesive can be applied within an ambient temperature range of 45°F (7.2°C) to 100°F (37.8°C). Store material at 70°F (21.1°C) for at least 24 hours prior to application if the ambient temperature is 50°F (10°C) or below. If adhesive is stored below 40°F, it must be stored at room temperature (72°F) for a minimum of three days before using. Empty containers may still contain pressure and remains hazardous until all flammable vapors, which may explode upon ignition, are gone from residue and container. Observe all labeled hazard precautions. Do not cut, puncture, or weld while hazard exists. Dispose of according to all federal, state, and local regulations.

**California Proposition 65 Warning:** This product may contain chemicals known to the State of California to cause cancer; birth defects and/or reproductive harm.

All values given are approximate and are subject to change without notice. There is no implied or express warranty given through these values or statements, nor are there any assertions that the product purchased has been individually tested to conform to these standards. Testing is performed on a random basis by "in-house" and independent "third party" evaluation for the purpose of classification and or approval. Acceptance, purchase and selection of these products are the sole responsibility of the buyer or buyer's representative. We assume no responsibility for coverage, performance or injuries resulting from use.

Seller warrants that this product shall be free of any defect in material or workmanship under normal use for a period of ONE YEAR from the date of purchase. This warranty does not extend to any defect or failure caused by misuse and/or incorrect application. LIMATATION OF LIABILITY: In the event of a defect or failure falling under this warranty, Buyer's sole remedy shall be refund of the purchase price or replacement of the defective material, at Seller's option. Under no circumstances shall Seller be liable for any losses or damages caused by this product, whether direct, indirect, special,

incidental, or consequential damages, whether based on contract, tort (including negligence) or any other legal theory. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY U.S. PLY, INC. EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE GOODS HEREIN SOLD BEYOND THE TERMS SET FORTH ON THE FACE HEREOF. NO EMPLOYEE OR AGENT OF SELLER IS AUTHORIZED TO ALTER THE TERMS HEREOF.

