

Technical Data Sheet

CP-500W™ Water Repellent Product Data and Test Information

PRODUCT NAME

CP-500W™
VOC compliant, penetrating water-based
water repellent for exterior/interior applications

MANUFACTURER

Chemical Products Industries, Inc.
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PRODUCT DESCRIPTION

CP-500W™ is a one component, VOC compliant, penetrating water repellent which contains a proprietary modified siloxane. This water-based siloxane penetrates most masonry and concrete pores and capillaries up to ¼ inch or more depending on surface porosity and moisture content at the time of application.

CP-500W™ reacts with the silica in concrete and masonry in the presence of ultraviolet light and atmospheric moisture. This reaction forms strong permanent bonds beneath the surface and creates a hydrophobic zone that prevents water molecules from penetrating, while allowing free migration of water vapors. The chemical bonds formed in this process allow CP-500W™ to become integral part of the substrate and provide long-term water repellent protection.

APPLICATIONS

Recommended surfaces include: architectural precast or cast in place, concrete, brick, mortars, natural stones, limestone, granite, sandstone, terra cotta, ceramic tile and grout, adobe, exposed aggregate products, Portland cement stuccos, plaster and concrete masonry units.

Protects horizontal surfaces such as pavements, sidewalks and plazas. It should also be used on vertical surfaces with leaks and or where extra protection is desired.

Also protects bridges, parking decks, airport taxiways and aprons, piers and marine structures, and other surfaces requiring outstanding corrosion resistance and protection from chloride penetration.

For use on brick masonry to protect against the entrance of wind-driven rain.

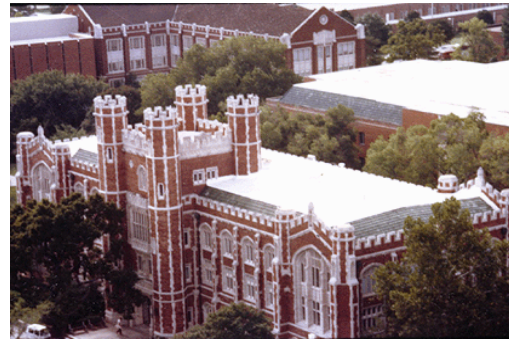
To reduce the effects of mildew, efflorescence, and stains from concrete and masonry.

ADVANTAGES

Effective on most vertical or horizontal exterior, above-grade masonry surfaces. Natural substrate color and surface textures are unaffected, with little to no gloss created.

Benefits of this product are:

- Excellent resistance to water intrusion
- Deep penetration into the substrate
- Exhibits good beading effects



Oklahoma University Library - Norman, OK

- 100% water vapor permeable
- Mildew and fungus resistant
- Efflorescence protection
- High resistance to alkali attack
- Freeze thaw protection
- Can be reapplied to treated surfaces

Chemical Products' state-of-the-art protective treatments have developed a reputation by architects and building professionals as the premier solution for water repellents and sealers. Chemical Products' is dedicated to solving the destructive influence water intrusion and other elements have on building materials.

APPEARANCE

CP-500W™ is clear, non-yellowing and does not change the color or appearance of typical surfaces to which they are applied. Buildings and structures stay cleaner because conditions which contribute to staining are reduced and dirt rinses away more readily.

PRETREATMENT FOR PAINT

Water can penetrate through most paints and coatings. This leads to damp substrates and blistering and peeling of paint. Pretreating concrete, masonry, or stucco with CP-500W™ prior to painting keeps walls drier and extends the life of the paint. CP-500W™ is compatible with most latex and other paints. But to assure compatibility between paint and pretreatment, a small test application is recommended. Note: Do not use a pretreatment or allow overspray on metal or other nonporous surfaces to be painted.

TECHNICAL DATA

Color	milky white
Active substance	polysiloxane
Active content	8%
Ph	5
Density	8.34#/gal.
VOC	<50 g/l

TEST DATA

ASTM C 67 % Reduction in Water Absorption on Brick During Immersion in Water for 24 hrs. Results – 96.9%

ASTM C 140 % Reduction in Water Absorption on 3000 psi Concrete During Immersion in Water for 24 hrs. Results – 91.29%

ASTM C 97 % Reduction in Water Absorption on Indiana Limestone During Immersion in Water for 48 hrs.
Results – 81.7%

ASTM C672 “Deicer Scaling”
100 cycles (deicer freezing and thawing using air-entrained concrete specimens)
Results - Little to No Change

ASTM E 514 “Water Permeance of Masonry”
Reduction in Leakage 99.9%

ASTM D 1653 Water Vapor Transmission
100% Breathable

LIMITATIONS

Not intended for below-grade waterproofing. CP-500W™ will leave a residue on non-porous substrates such as glass windows, metal frames and painted surfaces. Caution should be taken with specialty coated glass or plastic windows. Check compatibility before application. Protect materials which can be damaged by solvents. Do not apply when following conditions are present:

- Ambient or surface temperature less than 40° F or predicted to fall below 40° F within 24 hours following application.
- Rain within 72 hours prior to application or predicted within four hours after application.
- Wet or frozen substrates.
- High winds which could cause excessive overspray.

Application should be completed by qualified applicator with experience applying water repellents. Application equipment should be clean and free of foreign materials which could be dissolved and deposited on surfaces to be treated. Contact CPI for additional precautions and information on compatibility with specific materials.

INSTALLATION

Best results are obtained by applying CP-500W™ on clean and dry substrates. All surfaces must be cleaned to remove all traces of dirt, dust, efflorescence, mold, salt, grease, oil, asphalt, laitance, curing compounds, paint, coatings and other contaminants. Acceptable surface cleaning methods include shotblasting, sandblasting, waterblasting and chemical cleaners. If chemical cleaning agents are used, neutralize and wash off residues completely. Allow surface to dry at least 72 hours after water cleaning. Check with your Chemical Products Industries, Inc. representative to verify suitable cleaning methods, products and that the surface preparation is adequate.

As a standard procedure, fresh concrete should be allowed to dry for 28 days before application. All repointing must be completed and allowed to cure at least 3 days. Concrete repair and replacement must be completed prior to application. Patching materials, caulking, sealing materials, traffic paint must be fully cured before applying CP-500W™. In addition, the actual amount of material that is used for each application is dependent on the absorptive capacity of the substrate.

Before applying, it is recommended that preliminary tests be carried out to determine usage and to test the effectiveness of the treatment.

Application: Apply water repellents as early as practical to protect substrates during construction, but not before wall cap, flashings, and roof are in place and water trapped in structure has been drained.

This information is furnished without warranty, representation, inducement or license of any kind, except that it is accurate to the best of Chemical Products Industries, Inc.’s knowledge or obtained from sources believed by Chemical Products Industries, Inc. does not assume any legal responsibility for use or reliance upon same. Tests should be carried out only by chemists or chemically qualified lab technicians. Before using any chemical, read its label and Material Safety Data Sheet.

Spray apply CP-500W™ by low-pressure (150 psi maximum) pumping equipment with a wet fan type spray nozzle. Alternate methods include nap roller (1”) or by brush. Required application rate varies from 70 to 175 sq. ft. per gallon depending on surface texture and absorptency.

Vertical Surfaces: Mix well before using. Test small area before starting general application to assure desired results and coverage rates. Apply when surface and air temperatures are between 40°F to 110°F. Provide adequate ventilation.

Apply in a flooding application, from the bottom up so the material runs down 6 to 8 inches below the spray pattern. On horizontal surfaces the liquid material should pond on the surface at least 5 seconds before being absorbed. For best results two applications are recommended with the second application applied using a wet on wet technique, retreat within three to five minutes after initial application. A wet treated surface may be agitated with a soft bristle scrub brush to ensure more even distribution and greater penetration. During application, precautions should be taken to protect the surrounding area from overspray. Remove overspray from non-targeted surfaces immediately with soap and water. Apply to southern exposed areas during coolest part of the day.

Horizontal Surfaces: Mix well before using. Pretest to measure material coverage rates. Apply enough material so that solution stands for 60 seconds before completely penetrating the surface. If additional material is required to reach desired coverage rate, a wet on wet application can be used. Avoid puddling or ponding, brush or broom to spread material to more porous area. If applicable, block all drains and use absorptive coverings to contain run-off of excess material. To avoid unnecessary clean-up, use soap and water to remove overspray as soon as possible. **Caution: Over application of material may cause darkening of surface.**

Dry Time: To touch, or 2 to 6 hours depending on temperature and humidity.

Clean Up: Thoroughly rinse spray equipment with clean water. Wash rollers with soap and water. Rinse thoroughly.

Precautions: Fire hazards are eliminated since CP-500W™ is water-based and does not contain combustible or flammable solvents. Respiratory protection is not required during normal use and handling. Please refer to the Material Safety Data Sheet for more detailed information.

WARRANTY

Five years when properly applied. Contact Chemical Products Industries, Inc. for information and warranty requirements.

AVAILABILITY

CP-500W™ is available in 1, 5 and 55 gallon containers to approved applicators throughout the United States. Contact Chemical Products Industries, Inc. at 800-624-4356 for a sales representative in your area.

TECHNICAL SERVICE

Technical service engineers and chemists are available to answer questions on product performance, application methods and chemical composition.