AQUA SEAL AND SHIELD

Technical Data Sheet

Product description
: Aqua Shield is a water-dilutable 40% concentration solution of potassium methyl designed to impart deep-penetrating water repellency to a wide variety of surfaces. Prior to job-site application, the product is typically diluted down to a concentration of 3% or less in water. Once applied, Aqua Shield chemically reacts with carbon dioxide in the ambient air to form a fully insoluble, water-resistant barrier within 24 hours.

Advantages
: Water Repellency: Deeply penetrates to block moisture absorption across a wide range of inorganic and porous substrates.

Durability: Minimizes freeze-thaw spalling, cracking, and efflorescence (salt staining), significantly extending the service life of the material.

Wood Care: Specifically engineered for wood impregnation to cut down capillary water absorption while effectively enhancing the release of natural tannins.

Aesthetics: Completely colorless and non-yellowing formula preserves the exact original look of the substrate without leaving a glossy or artificial film

Uses
: Masonry & Stone: Ideal for bricks, sandstone, limestone, and architectural ceramics to create a moisture-resistant barrier.

Wood Impregnation: Deeply penetrates wood surfaces to stop moisture intrusion and protect structural integrity.

Moisture Control: Harnesses high-performance water repellency to drastically cut down absorption rates in porous construction materials.

Technical Properties		
Total Solids Content, 90 min at 150°C (302°F)	0332	40-45%
Silicone Solids Content	0332	24%
Specific Gravity at 25°C (77°F)	0001A	1.29
Flash Point, Open Cup	0090	> 93.8 (200) °C (°F)
PH	00077	13
Density		10.8 (1290) Lb/gal (g/L)
Solvent (Thinner)		Water
Volatile Organic Compound Content		< 0.417 (< 50) Lb/gal (g/L)

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Mixing: Dilute Aqua Shield to 3% solids or less before application by mixing one gallon of the supplied product with 13 gallons of water, avoiding higher concentrations unless preliminary testing proves it necessary. For wood impregnation, use a higher dilution of 5% to 10% solid content, but always test the mix first to prevent a white residue from forming on the surface. Allow treated substrates to dry for at least 24 hours to develop full water repellency, though you can accelerate drying using temperatures up to 350°F (175°C) while still allowing adequate time for the chemical curing process. Note that introducing carbon dioxide streams will not significantly speed up this cure time.

Application: Apply diluted Aqua Shield using dipping, spraying, or brushing methods, ensuring you always test a small sample first to confirm suitability. Lightly dampen masonry surfaces immediately before applying, keeping in mind that the product will not adhere to surfaces previously treated with silicones or other water repellents. Exercise extreme caution when spraying, as the caustic formula damages vegetation and etches glass, plastics, and most metals; wash any accidental contact immediately with water, and scrub away stubborn white potassium carbonate residues if over-application occurs.

For wood impregnation, dilute the solution to as low as 1% active content for vacuum methods, or between 5% and 10% for brushing, rolling, and dipping, applying until the surface is fully saturated. Ensure wood is clean, free of contaminants, and preferably dry for proper penetration, though minor variations in performance can occur depending on the specific wood species. Always run preliminary trials to determine the ideal application rate, verify compatibility, and assess the impact on capillary water absorption and color.

Clean-up/Storage: Product should be stored at or below 25°C (77°F) in original, unopened containers.

Precautionary Statement The information contained herein is provided in good faith and is believed to be accurate at the time of publication. However, because conditions of use and application methods are beyond the manufacturer’s control, no guarantee or warranty, expressed or implied, is made as to the results obtained from the use of this product. Users are responsible for determining the suitability of the product for their specific application and should conduct appropriate testing prior to full-scale use. The manufacturer reserves the right to modify product formulations, specifications, and technical data without prior notice as part of ongoing product development and quality improvement efforts. The manufacturer shall not be liable for any direct, indirect, incidental, or consequential damages resulting from the use or inability to use this product. For the most current product information, technical support, or clarification of product limitations, users should contact the manufacturer directly

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