



Permasil

Water-Based Chemical Hardener and Dustproofers

DESCRIPTION

Permasil is a water-based sodium silicate solution designed to be used on new and old concrete surfaces to harden, seal and dustproof. When properly applied, **Permasil** reacts with the available free lime in the concrete to reduce porosity and permeability of the concrete matrix. This serves to increase hardness and chemical resistance, which in turn increases the service life of the concrete. **Permasil** penetrates the concrete; it will not scratch, peel or show tire marks. **Permasil** is compatible with subsequent adhesives and coatings.

USES

Permasil is ideal for hardening and dustproofing concrete interior and exterior applications such as:

- Warehouse floors
- Processing plants
- Basements
- Schools
- Offices
- Residential or commercial floors that will receive subsequent flooring, coatings or adhesives

BENEFITS

- Contributes to LEED EQ Credit 4.2
- Can act to enhance concrete hydration without forming a membrane on the surface
- VOC Compliant: No solvents
- Performance: Hardens and dustproofs
- Resistant: Improved resistance to attack from chemicals, oils and de-icing salts
- Non-staining: Will not discolor concrete
- Pre-Blended: Ready to use
- Efficient: Easy application and clean-up

SURFACE PREPARATION

All surfaces in contact with **Permasil** shall be free of dirt, oil, grease, laitance and other contaminants that may act as bond-breakers. All unsound concrete should be removed. Surface must be structurally sound and free of all contaminants. A suitable concrete cleaner not harmful to concrete should be used as a degreaser and to remove rubber tire marks. Thoroughly rinse and allow surface to dry prior to application.

COVERAGE

Actual rates may vary depending on type and porosity of the surface and application method. Recommended coverage is as follows:

Broomed Surface:	300–400 ft ² /gal
Troweled Surface:	500–600 ft ² /gal
Vertical Surface:	400–500 ft ² /gal
Old Concrete:	200–300 ft ² /gal

MIXING

For best results, mix thoroughly before each use. Do not over agitate or use high speed mixing equipment.

PHYSICAL PROPERTIES

Complies with VOC contents in accordance with Federal EPA 40 CFR Part 59 Table 1, Subpart D for Concrete Curing and Sealing.

VOC	0 g/L
Color	Clear
Viscosity	1 CPS
Flash Point	Non-Flammable
Dry Time	4 hrs at 70°F (21°C)
Staining	None
Shelf Life	1 Year

PLACING

Apply with a low pressure sprayer, brush, squeegee or roller. Spray application is recommended. A hand held pump sprayer or an airless industrial sprayer is acceptable. Apply evenly without puddling. Each coat must be thoroughly dry before applying an additional coat. Brush out runs and puddles immediately. Wash and flush out any white surface crystals with cool water and brushing. Do not interchange use of sprayer that has been used to spray a solvent based product.

STORAGE

Protect from freezing. Store in an interior, cool, dry place above 45°F (7°C). Shelf life is one year in original, unopened container.

CLEAN-UP

Clean tools and equipment with warm, soapy water. After materials have dried, it may be necessary to use solvents such as mineral spirits, toluene or xylene.

LIMITATIONS

In addition to the limitations already mentioned, please note the following. Do not puddle material. If excess **Permasil** is left on the surface, a white residue may form and should be removed by scrubbing immediately. Hardened, excess material may need to be removed with a grinder. Applications to colored concrete should wait a minimum of 60 days for best results. Accidental exposure to glass, aluminum or polished metals should be flushed immediately with clean water to avoid potential etching. Allow the material to dry completely (minimum 4–6 hours) before exposing to traffic. Do not apply when the temperature of the concrete is below 40°F (4°C). Do not mix with any other products. Do not pour unused material back into original container.

Packaging: 5 gal (18.9 L) pail, 55 gal (207.9 L) drum



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WARNING

May cause eye damage/irritation. May cause skin irritation. May cause respiratory irritation. Wear protective gloves and eye/face protection. Wash with plenty of water and soap thoroughly after handling. Avoid inhalation of vapors. Do not eat, drink or smoke when using this product. Use only outdoors or in a well ventilated area.

FIRST AID

If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: call a poison center or doctor/physician. If swallowed: contact a poison control center/doctor if you feel unwell. Rinse mouth. If on skin: wash with plenty of soap and water. If skin irritation or rash occurs, get medical advice. Take off contaminated clothing and wash it before reuse.

MANUFACTURER/TECHNICAL SERVICE

Contact your US SPEC manufacturer's representative for the most current product information. Always read and follow the warnings and instructions on the most current technical data sheets, available online at www.usspec.com.

US MIX Co.
112 South Santa Fe Drive
Denver, CO 80223
Tel: 303.778.7227 Fax: 303.722.8426
Web Site: www.usspec.com

NOTICE OF LIMITED WARRANTY US MIX Co. (manufacturer) warrants to buyer that this product at the time and place of shipment is of good quality and conforms to the manufacturer's specifications in force on the date of manufacture when used in accordance with the instructions hereon. Manufacturer cannot warrant or guarantee any particular method of use, application or performance of the product under any particular condition. This limited warranty cannot be extended or amended by manufacturer's sales people, distributors or representatives or by any sales information, specifications of anyone other than the manufacturer. Liability under this warranty is expressly limited to refund of the purchase price. See product packaging for complete limitation of warranties and liability.