



Selection & Specification Data

Generic Type	Modified water-based acrylic siloxane.
Description	A water repellent sealer that penetrates concrete and masonry. The treated surface will have greatly improved resistance to penetration of salts, water, oils and other contaminants. The recommended uses are for protection of masonry and concrete surfaces such as exterior walls, bridge decks, roadways, median barriers, bridge piers and other highway concrete requiring protection from chloride penetration.
Features	<ul style="list-style-type: none"> . Excellent abrasion resistance. . Excellent weathering resistance. . May be mixed with pigmented finishes to produce a translucent or opaque stain. . Environmentally friendly and cost effective. . Prevents damaging penetration of water and salts. . Breathable. . Does not reduce the non-skid properties of concrete.
Color	Clear. May be tinted with inorganic pigments produce a translucent stain. Do not attempt to achieve a final color lighter than the substrate color. For additional information on the stain system see "Mixing & Thinning" information on side 2 of this data sheet.
Primers	This is a self-priming sealer.
Dry Film Thickness	UniLac 4 does not form a film. Use coverage data for appropriate material requirements and application rates.
VOC Values	As supplied: 1.7 lbs/gal (209 g/l) These are nominal values.

Theoretical Coverage Rate

	ft ² /Gallon	M ² /Litre
CMU (Normal weight)	60-80	1.5-2.0
Split Face CMU (normal weight)	1st coat 40-60	1.0-1.5
	2nd coat 80-120	2.0-2.9
CMU Slump	100-150	2.5-3.7
Adobe	50-80	1.2-2.0
Stucco-rough	100-200	2.0-2.5
Concrete-cast in place	150-300	3.7-7.4
Concrete-precast	150-300	3.7-7.4
Concrete slab on grade	100-150	2.5-3.7
Used brick	70-100	1.7-2.5
Granite and limestone	100-200	2.5-4.9



Substrates & Surface Preparation

General	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil, existing coatings, curing compounds, efflorescence, laitance, and all other contaminants that may prevent absorption.
Concrete	Concrete, concrete block, brick, stucco or plaster must be properly prepared. New concrete must be cured a minimum of 7 days at 75°F (24°C) and be free of surface moisture. Paintable caulking, sealants and any repairs needed to the surface should be installed prior to the sealer application. Concrete, pre-cast and cast-in-place surfaces tend to be tight and non-absorptive. Mechanical abrasion or acid etching is recommended to achieve even penetration and appearance. Acid washes must be thoroughly rinsed with water and allowed to dry.

Performance Data

Test Method	System	Results
ASTM C 67 ASTM C 642 Water Absorption	1 Coat UniLac 4	3% Maximum 24 hours/75°F
ASTM D 1653 Moisture Vapor Permeability	1 Coat UniLac 4	23g/ft2 24 hr/75°F
ASTM E 514 ASTM C 1389 Water Repellency vs Untreated Masonry	1 Coat UniLac 4	89.4%
ASTM D 4587 Accelerated Weathering	1 Coat UniLac 4	No Effect after 1000 hours
AASHTO T259, T260 Chloride Penetration Test 3% NaCl (90 day ponding)	1 Coat UniLac 4	0.39 lbs./m3 - Pass

Test reports and additional data available upon written request.

Packaging, Handling & Storage

Shipping Weight (Approximate)	5 Gallon 43 lbs. (20 kg)	55 Gallons 483 lbs. (220 kg)
Flash Point (Setaflash)	>212°F (200°C)	
Storage (General)	Store Indoors. Do not allow to freeze.	
Storage Temperature & Humidity	40° - 110°F (4°-43°C) 0-90% Relative Humidity	
Shelf Life	12 months at 75°F (24°C)	

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Application Equipment

Spray Application (General)	The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.
Airless Spray	Use standard airless spray equipment with a .015" - .017" tip size. The more porous the substrate, the larger the tip size that can be used. Horizontal Surfaces: Flood surface using low pressure sprayer. If two coats are desired, let the surface absorb the solution. Do not apply a second coat if any whiteness still remains in first coat. Redistribute any puddles or freestanding material; remove excess material after 15-30 minutes. Vertical Surfaces: Apply by low pressure spray in one or two applications as required for uniform color from the top down. Hold tip 12-18 inches from surface. Material should run down 3-5 inches from point of contact.
Brush & Roller	Recommended for small areas only. Use a short-nap synthetic roller cover with phenolic core.

Mixing & Thinning

Mixing	Mix UniLac 4 thoroughly before use. When used as a stain, mix prior to and during application as needed to achieve a uniform appearance. For application as a translucent or opaque concrete stain, follow the ratios recommended below.
First Coat	Mix four (4) parts UniLac 4 to one (1) part pigmented acrylic.
Second Coat (Translucent Stain)	If a translucent stain is desired, mix one (1) part UniLac 4 to four (4) parts pigmented acrylic.
Second Coat (Opaque Stain)	If an opaque stain is desired, mix one (1) part UniLac 4 up to ten (10) parts pigmented acrylic, to achieve desired opacity. While color and translucency is almost unlimited, the original substrate color and color variances will show through the translucent colors and affect the final color. A test application over the actual substrate and approval by the owner or owner's representative is highly recommended.
Thinning	Thinning is not required and is not recommended. Use of thinners other than those supplied or recommended by Union Compound may adversely affect product performance and void product warranty, whether expressed or implied.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	75°F (24°C)	75°F (24°C)	75°F (24°C)	50%
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	110°F (43°C)	110°F (43°C)	90%

Do not apply when the surface temperature is less than 5°F (3°C) above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions. For temperatures above 100°F (38°C), pre-wet surface with clean potable water prior to application.

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Curing Schedule

The drying time between coats is approximately two (2) hours to four (4) hours at 75°F (24°C).

Cleanup & Safety

Clean Up	Use a wet cloth and detergent to clean wet material. Use thinner 11 to clean tools and equipment where material has dried. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
Caution	Do not allow to freeze. This is a water-based product and must be kept above 32°F (0°C).
Safety	Read and follow all caution statements on this product data sheet and on the MSDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation and wear gloves or use protective cream on face and hands if hypersensitive. Keep container closed when not in use.