

MASTERSEAL® 340

Siloxane penetrating sealer

DESCRIPTION:

MASTERSEAL® 340 water-based siloxane sealer is designed to reduce water absorption and chloride penetration. It is supplied as a concentrate that must be diluted with water prior to use. MASTERSEAL 340 sealer is suitable for old and new, fully cured concrete. It will protect all types of concrete substrates, including cast-in-place, precast and prestressed, brick, masonry & mortar and stucco.

RECOMMENDED FOR:

- Parking garages
- Bridges
- Roads
- Commercial buildings
- Architectural concrete

FEATURES/BENEFITS:

- Organic content complies with all state volatile organic compound (VOC) regulations
- Excellent permeation resistance for water and salts
- Chemically bonds into concrete
- Permeable to water vapor - allows substrate to breathe
- Does not significantly darken, stain or gloss the substrate
- Absorbed into concrete rather than remaining on concrete surface
- Wears off only with concrete abrasion

PERFORMANCE DATA¹:

(Field Properties May Vary)

After dilution with water:

Viscosity @ 77 °F (25 °C) <500 cps

Density @ 77 °F (25 °C) 8.33 lb/gal (1 kg/L)

Color Slightly opaque

Flash Point, TCC

Concentrate	67 °F (19 °C)
After Dilution	130 °F (54 °C)

Scaling Resistance, 50 cycles No scaling
(ASTM C 672)

Volatile Organic Content (VOC) 345 g/L

Shelf Life (concentrate)

18 months (minimum) in sealed containers completely protected from moisture at temperatures between 40 and 90 °F (4 and 32 °C)

TEST DATA:

MASTERSEAL 340 polysiloxane sealer was evaluated as a protective penetrant on portland cement concrete using the testing procedures recommended in the NCHRP Report No. 244 researched by Wiss, Janney & Elster Associates, Inc.

In the Series II tests, specially prepared 4 in. (100 mm) concrete cubes were treated at coverage rates of 125 ft²/gal (3.1 m²/L). These concrete cubes were emersed, together with untreated control samples, in a 15% aqueous sodium chloride solution for 21 days. At the end of the emersion period, the weight and chloride content of the treated cubes were compared with the data obtained from the untreated control samples:

Coverage Rate ft ² /gal (m ² /L)	% Reduction Weight Gain	% Reduction Chloride Ion
125 (3.1)	76	85
Passing Value	75	75

ESTIMATING:

Packaging

The concentrate is available in 3/4 and 4-1/2 US gal (2.8 and 17.0 L) units.

Dilution

MASTERSEAL 340 sealer is supplied as a concentrate that is diluted with potable water in the field prior to the application. Once water has been added to the siloxane concentrate, the diluted product must be used within 24 hours.

Recommended Dilution Rates

Concentrate	:	Water	=	Yield
3/4 gal (2.8 L)	:	4-1/4 gal (16.1 L)	=	5 gal (18.9 L)
4-1/2 gal (17.0 L)	:	25-1/2 gal (96.5 L)	=	30 gal (113.6 L)

Coverage Rate² 125 ft²/gal (3.1 m²/L)

² Two coats are recommended for vertical surfaces @ 250 ft²/gal (6.2 m²/L) per coat.

SURFACE PREPARATION:

Surfaces must be free from laitance, curing compounds, dust, paint, grease, oil, rust and other contaminants. Shotblasting or sandblasting are the preferred methods for preparation. Acid-etching or waterblasting should be considered where these are not possible.

¹ Technical data, shown above, is based on performance of new material only. Once applied, material properties are likely to be affected over time due to environmental factors such as aggressive UV exposure or extreme temperatures. Properties are typical and descriptive of the product and may be used as a guide for determining suitability of particular applications.

APPLICATION:

Best results will be obtained on dry substrates. Application of this product on damp or wet substrates may significantly reduce depth of penetration. Wet surfaces should be allowed to air dry for a minimum of 24 hours prior to treatment. Below 60 °F (16 °C), the air drying period should be extended. Rain within 24 hours of treatment may diminish the hydrophobic performance of this product on exposed surfaces.

Mix concentrate with the appropriate volume of water. Apply by stiff brush, short nap roller, squeegee, typical garden sprayer or conventional paint spray equipment. A coverage rate of 125 ft²/gal (3.1 m²/L). A single coat application is suitable for most horizontal surfaces, while vertical surfaces may require two coats at 250 ft²/gal (6.2 m²/L).

Open to Traffic³

Treated surfaces may be open to traffic in:

- 24 hours @ 90 °F (32 °C)
- 36 hours @ 75 °F (24 °C)
- 48 hours @ 55 °F (13 °C)
- 72 hours @ 40 °F (4 °C)

³ Exposure to sunlight and ventilation may decrease these times.

LIMITATIONS:

Usable Temperature Range

Substrate Temperature 40 to 90 °F (4 to 32 °C)
Minimum Cure Temperature 40 °F (4 °C)

Material will freeze at temperatures below 32 °F (0 °C)

SAFETY PRECAUTIONS:

MASTERSEAL 340 water-based polysiloxane sealer is formulated and recommended for industrial and professional use only. These products contain chemicals that may be COMBUSTIBLE and potentially HARMFUL to your health if not stored and used properly. Hazards can be significantly reduced by observing all precautions that are found on Material Safety Data Sheets (MSDS), product labels and installation procedures. Please read this information carefully before using this product.

During application of MASTERSEAL 340 sealer, ensure adequate ventilation and wear gloves, eye protection and appropriate work clothing to minimize contact.

For additional information, contact your local Master Builders representative.

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