



STONE AND FLOORCARE

HOW TO GUIDE: SEALING: CONCRETE

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DESCRIPTION

Concrete is a construction material made up of mainly water, Portland cement, sand and other cementitious materials such as fly ash and slag cement and aggregates (generally gravel, limestone, granite or agate.) Portland cement usually in powdered form acts as a binder when mixed with water and aggregate and hardens after mixing through a process known as hydration. Concrete is poured in a semi liquid state, placed and finished to harden into a durable solid state. Concrete is used more than any other man-made material in the world.

CURING

Concrete should not be sealed for at least 28 days after installation. This is because new concrete is extremely alkaline when newly installed which will attack the sealer. Secondly concrete cures through a process of hydration and should not be sealed with moisture content above 4-5%. Sealing wet concrete will result in sealer failure.

FLOORS:

CLEANING BEFORE SEALING

In the case of concrete, acid-based cleaners like STONESHIELD BRICK & MASONRY CLEANER can be used for the removal of surface dirt, contamination, red soil stains and laitance. .

STONESHIELD DEEP-CLEAN™ or STONESHIELD WAX-OFF™ should be used to remove grease, grime and oil.

Etching of the surface to 'key' for adhesion is critical. Failure to etch the surface correctly will result in sealer failure. Use STONESHIELD BRICK & MASONRY CLEANER to etch the concrete floor. STONESHIELD BRICK & MASONRY CLEANER is an inhibited acid which prevents attack and tarnish to metal surfaces. A finish similar to the feel of 80 grit sandpaper is required. The concrete must be completely dry with a moisture content of less than 4-5%.

WHY CONCRETE NEEDS SEALING?

Concrete floors are made with natural materials which require sealing to protect against the following:

1. Sealing reduces the porosity of the concrete reducing the chance of permanent staining. e.g. motor oil
2. Sealing protects against chemical attack from strong acids and alkalis.
3. Sealing strengthens the surface, providing increased abrasion resistance and surface protection.
4. Sealing often improves the aesthetic finish of the concrete.
5. Sealing stops the concrete from dusting and prevents surface wear.

SEALER RECOMMENDATIONS

Recommended sealer for concrete floors: INDUSTRIAL CONCRETE SEALER (single pack urethane sealer)
: PREMIUM-PLUS™ (twin pack polyurethane sealer)
: CEMENT-SEALER™ (solvent-based acrylic sealer)

Recommended sealer for vertical concrete : WALL-CLADDING-SEALER™ (water-based repellent)

SEALER SELECTION

The intended purpose of a sealer is to protect the surface. Different types of protection are required based on the type of floor or surface.

1. In the case of polished concrete only protection against staining is required. In this case a penetrating sealer or repellent would be the correct choice.

Concrete floors - STONESHIELD MARBLE, GRANITE & TRAVERTINE SEALER™
- CONCRETE DENSIFIER – LITHIUM

2. In the case of ordinary concrete floors protection against surface wear and tear as well as staining is required. In this case a resin type sealer is required.

Concrete floors - STONESHIELD INDUSTRIAL-CONCRETE-SEALER™

Concrete floors - STONESHIELD PREMIUM-PLUS™

Concrete floors - STONESHIELD CEMENT-SEALER™

3. In the case of vertical concrete surfaces only protection against staining and erosion from salt and chemical attack is required. In this case a penetrating sealer or repellent would be the correct choice.

Concrete floors - STONESHIELD WALL-CLADDING-SEALER™

STONESHIELD INDUSTRIAL-CONCRETE-SEALER™

Description : A premium quality high gloss, single pack solvent-based urethane sealer that provides anti-dusting, maximum stain and surface protection and ease of cleaning. For interior use only. Will “yellow” in direct sunlight and under U.V. lighting.

Uses: Suitable on all types of industrial concrete floors. Can also be used on commercial and domestic concrete floors where maximum surface protection and stain resistance are required.

Most suited for high traffic industrial & commercial concrete floors, including garage floors & warehouses.

STONESHIELD PREMIUM PLUS™

Description: A premium quality, non-yellowing solvent-based twin pack urethane sealer that provides a high gloss, premium stain resistance, anti-dusting, maximum stain and surface protection. A penetrating sealer that colour enhances and provides a “wet look” finish. For interior use only.

Uses: Suitable on natural and oxidized cement screeds & floors, imprint paving, industrial and oxidized concrete, oxidized cement screeds and other coloured concrete products. Can also be used on commercial and domestic concrete floors where maximum surface protection and stain resistance are required.

Most suited for high traffic industrial & commercial concrete floors, including garage floors & warehouses.

STONESHIELD CEMENT- SEALER

Description: A premium quality, non-yellowing solvent-based resin sealer that provides a satin finish, superior stain resistance and surface protection. A penetrating sealer that colour enhances and provides a “wet look” finish. For interior and exterior use.

Uses: Suitable on natural and oxidized cement floors, imprint paving, cement tiles, pavers and cobbles. Also suitable for low traffic and domestic concrete floors.

STONESHIELD WALL-CLADDING-SEALER™

Description: A superior quality natural look, no sheen, no surface film, solvent based penetrating water repellent, designed to provide protection against rain, moisture, general airborne dirt, pollution, mould and mildew. Allows water vapour transmission. Suitable for interior and exterior use.

Uses: Suitable on cement bricks and blocks, fibre cement, concrete and masonry surfaces and artificial stone.

LIMITATIONS:

Do not apply to damp floors or surfaces.

Allow sufficient time, at least 24 hours between washing and sealing. Consult the STONESHIELD sealer label for the correct drying times for the sealer selected.

Do not wet floors or surfaces for at least 24 hours after sealing.

Allow at least 4 - 8 hours drying time before foot traffic depending on the sealer selected.

Do not apply sealer externally if rain is expected within 12 hours.

Store and use between 16°C and 32°C only.

SURFACE TYPES	CONCRETE FLOORS & SCREEDS			WALLS & CLADDING
NAME	INDUSTRIAL- CONCRETE- SEALER™	PREMIUM-PLUS™	CEMENT-SEALER™	WALL-CLADDING- SEALER™
Quality	Premium quality	Premium quality	Superior quality	Superior quality
Colour change	Yellowish finish	Colour enhancing	Colour enhancing	Natural look
Surface finish	High gloss	High gloss	Satin sheen finish	Natural finish
	Surface protection	Surface protection	Surface protection	No surface film
Type of sealer	Resin sealer	Resin sealer	Resin sealer	Repellent
Water / solvent	Solvent-based	Solvent-based	Solvent-based	Water-based
Usage	Interior only	Interior only	Interior & exterior	Interior & exterior
Over coating times	4 hours	4 hours	2 hours	Wet on wet application
Expected wear	10 years +	10 years +	3 years	15 years
Min. no of coats	2 coats	2 coats	2 coats	1 coat
Maintenance: cleaner	Deep-Clean™	Deep-Clean™	Deep-Clean™	none

For additional information and advice call:
STONESHIELD cc.

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