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SHIMICOAT
SURFACE SOLUTIONS



Concrete Polish Complete Kit

Kit Sizes

SMALL Kit - 50sqm

Product Description	Size	Code	Quantity
Groutex	10Lt	GX	1
Densilicate	10L	DS	1
AQUAthane	5Lt	AT	1

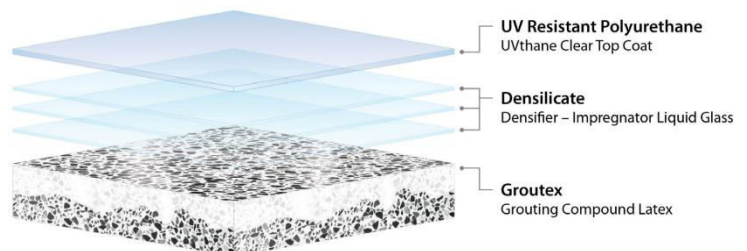
LARGE Kit - 100sqm

Product Description	Size	Code	Quantity
Groutex	20Lt	GX	1
Densilicate	20L	DS	1
AQUAthane	10Lt	AT	1

Description

SHIMICOAT Concrete Polish is a complete kit containing all the surface treatment and coating components needed for a professional concrete polishing process, these are:

- Grouting compound to fill and seal the surface micro-pores, created during surface multi-grinding process
- Concrete Densifier or Impregnator to harder the floor by forming Calcium Silicate glass surface
- Water Based UV Resistant Polyurethane Sealer (Aqua UVthane) – *Other sealers are available*



Multi-Stage Mechanical Grinding
Metal, Ceramic & Resin Bond

Kit Includes

Commercial Grade Complete Concrete Polishing Kit contains:

- **Groutex** (Grouting Latex Polymer to fill pores and prep for polishing)
- **Densilicate** (Densifier to harden concrete surface)
- Water Based UV Resistant Polyurethane Sealer (AQUAthane)

Kit Sizes	Groutex	Densilicate	AQUAthane
Small (25Lt)	10Lt	10Lt	5Lt
Large (50Lt)	20Lt	20Lt	10Lt



MATERIALS



CHEMICALS



RESINS





EQUIPMENT

Ph: (08) 9364 7446 | info@shimi.com.au | ABN: 28 622 871 283 | www.shimi.com.au

Coverage

	Kit Sizes	Groutex	Densilicate	AQUAthane
Small Kit: 50sqm Coverage		10Lt	10Lt	10Lt
Large Kit: 100sqm Coverage	Small (25Lt)	5-10sqm/Lt Allow for 50sqm	5-10sqm/Lt Allow for 50sqm	10sqm/Lt Allow for 50sqm
	Large (50Lt)	20Lt 5-10sqm/Lt Allow for 100sqm	20Lt 5-10sqm/Lt Allow for 100sqm	10Lt 10sqm/Lt Allow for 100sqm

Application

Products	Method of Application
Groutex	Spray over the wet surface Scrub using a Fine Bristle Broom Grind using 120Grit diamond disks Read SHIMICOAT Polishing process for further information 
Densilicate	Microfiber Flat Mop Apply in multi-stages Apply to rejection DO NOT puddle, Lick wet the surface DO NOT walk over wet surface, NO footprints Read SHIMICOAT Polishing process for further information 
Sealer	Roller, Brush or Spray

Read SHIMICOAT Polishing Procedure for further information.

Dry Time at 25°C

First coat of Densilicate should be applied rich and allow to soak in and react with surface for 6 hours.

Second coat of Sealer shall be applied once the surface is fully dry.

Products	Dry Time at 25°C
Groutex	2-3 Hours
Densilicate	15-30 Min
Sealer	2-3 Hours

Clean Up

All three products are water-based and can easily be cleaned up with water. Wash, rinse and flush with water. General purpose detergent can be used.

Preparations

Clean and dry surface. Ensure surface to be polished is free of all dirt, grease, oil, paint, curing agents and other contaminants. Removal of Oil Contamination by degreaser and alkaline cleaning pressure wash. Acid-wash to enhanced surface porosity and etch the surface.

For further information, please refer to SHIMICOAT Instruction for "Surface Preparations"

NOTE: Surface preparation for polishing is different to Epoxy coating. Please read SHIMICOAT Polishing Procedure for further information.

Components of the Kit

Groutex

Groutex is a concrete grouting latex compound and bonding additive specifically formulated for use in re-grouting / filling of pores in concrete surfaces. Groutex Grouting Latex adhere permanently to form an inherent part of the concrete polishing process. It contains latest technology Polymeric Latex Compound and a blend of specialty surfactants to assist deep and effective penetration through concrete surface for ideal surface grouting. The product is highly effective in patching and filling small air pockets / pin holes when polishing concrete floors.

Groutex Grouting Latex is cost efficient, environmentally preferred (water-based) latex polymer for use as part of surface preparations for polishing. The product can be used as supplied, ready to use (RTU). No dilution or premix make down is required.

Groutex Grouting Latex is a modified, latex polymer engineered for use as a high-strength binder in surface coating and concrete polishing. It is for use in high-quality and high performance as a pre-coating or basecoat latex; and in size press applications. The product offers excellent pick strength combined with excellent runnability on high-speed blade coaters. It is especially recommended for increasing the total coating solids. Because of its excellent film forming characteristics, it gives a tight coating with exceptional pores filling capability and delta gloss.

Densilicate

Densilicate is a concrete densifier, hardener, binder or concrete impregnator liquid, used by professionals during the concrete polishing process to increase the surface integrity.

SHIMICOAT Densilicate contains alkaline silicate based concrete densifier and a blend of specialty surfactants to assist surface penetration and deep hardening of the surface. The product is a chemical hardener which is applied to concrete floors and substrates to reduce surface porosity, increase hardness and provides dust-proofing properties. Densilicate is designed to help decrease cleaning and help make the surface less penetrable to undesirable fluid and stains. It produces a hard dust-free finish surface.

SHIMICOAT Densilicate is ideal for concrete surfaces especially those soft, damaged, powdered or friable cement and masonry surfaces. The product is engineered for warehouses, commercial & industrial and Basement Floors.

SHIMICOAT Densilicate applied to the surface to:

- | | |
|---|---|
| ▪ Harden the surface & Dustproof | ▪ Moisture barrier enhancer |
| ▪ Fill in the pores at the surface | ▪ Improve water-resistant, minimize water erosion |
| ▪ Increase surface density | ▪ Enhance chemical resistant |
| ▪ Improve the wear resistance | ▪ Minimize efflorescence formation |
| ▪ Penetrating Alkaline silicate Solution | ▪ Increase lifespan of concrete surface |
| ▪ React with free Calcium and Lime | ▪ Ideal to densify concrete surface for Diamond Polishing |
| ▪ Convert brittle lime into Super-hard Calcium Silicate | ▪ Will not flake, peel or scratch off |
| ▪ Fills voids, creating strength and durability | ▪ Odorless and pleasant to work with |
| ▪ Protect against sunlight, oil, traffic and dirt | |
| ▪ Provides a hardened densified concrete surface | |

Lime (Calcium Oxide) + Silicate Densifier → Calcium Silicate + Alkaline Hydroxide

SHIMICOAT Densilicate is a high-performance Concrete Densifier–Surface Impregnator can be used to effectively be used as part of concrete polishing process. Please read SHIMICOAT Concrete Polishing procedure for further details. SHIMICOAT Densilicate can be used on new and old concrete surfaces and granolithic pavers where a hard surface with light to moderate abrasion resistance is required. Ideal for floor surfaces such as garage, workshops, warehouses, industrial plants, stores, shopping malls, parking structures, service stations in both residential and commercial capacities. Suitable for both interior or exterior applications. On concrete slabs where no specific curing efficiency or standards are required. Most economical solution for dustproofing concrete floors, especially for large floors.

Waterborne Concrete Sealer

SHIMICOAT water-based Acrylic Sealer is a blend of self cross-linking dispersions and coalescing agents reduced to application viscosity. It is intended for use as interior or exterior sealer for concrete surfaces. Normally it would be applied as two coats on new concrete. SHIMICOAT Waterborne Concrete Sealer is a blend of acrylic based cross-linking polymeric dispersions, coalescing agents and surfactants to be used as interior or exterior sealer for concrete and cementitious surfaces. The product is a single pack and easy to apply. It is engineered to penetrate through concrete surfaces and adhere to produce a neutral clear low sheen coating, which is hard-wearing and durable. Waterborne Concrete Sealer is a clear penetrating Sealer, solvent-free and fast drying sealer.

Ideal for most surfaces:

- Exposed Aggregate
- Limestone
- Grey Concrete
- Decorative Concrete
- Tiles
- All Pavers
- Timber Surfaces
- Polished Concrete

Care must be taken not to apply thick coats as excessive build may cause the film to blush when subjected to ponding. AQUAthane can also be used as it has all above properties plus further scratch resistant properties due being Polyurethane based resin.

Features

SHIMICOAT water-based Acrylic sealer is engineered to penetrate through concrete surfaces and adhere to produce a neutral clear low sheen coating, which is hard-wearing and durable. Waterborne Concrete Sealer is a clear topical, solvent-free and fast drying sealer.

- Easy Application:
 - Rolled
 - Brushed
 - Sprayed
- Non-Hazardous – Non-Dangerous Goods Technology
- Fast Drying
- Engineered as waterproof surface for interior and exterior substrates
- Super-hard finish surface
- Excellent water resistant
- Crystal Clear Transparent
- Ideal for outdoor with excellent resistance to weathering conditions
- Easily Recoated
- Produces a hard, yet flexible clear film
- Excellent resistance to weathering
- Long lasting and Durable
- Excellent adhesion to most substrates
- Clear & Colourless
- Non-Yellowing and resistant to discoloration
- Ideal for Indoor and Outdoor
- Ready-to-use formulation without any need for dilution
- Contains advanced polymer technology to penetrate deep into surface
- Protect against waterborne contaminants
- Protect against salt ion ingress
- Protect against efflorescence, biological growth
- Excellent resistance to oil and most household chemicals
- Excellent resistance to water
- Excellent resistance to alkalis and high pH conditions
- Provides excellent adhesion, weather and water proofing protection
- Forms a hard-wearing surface
- Last up to 5 years, depending on the traffic

Specifications

Physical Properties of components: *Groutex, Densilicate and Water-Based Acrylic Sealer*

GROUTEX – Grouting Latex Polymer

Appearance	Milky water think liquid
Solid Content (%)	>25% Active Latex Polymer
VOC	0%
Thinning, Dilution Chemicals	Water Soluble
Application Conditions (Temp °C)	10 – 30 °C (DO NOT apply at Sub-Zero Temp)
Coverage Rate	6 sqm/L to be applied using brittle broom
Specific Gravity	1.01
pH	8.5
Brookfield Viscosity	<150cpc
Surface Tension	40 Dynes/cm
Glass Transition Temperature	20°C
Mechanical Stability	Excellent
Multivalent Ion Stability (Tolerance)	Excellent
Shelf Life	24 Months
Foam	Low
Emulsifier	Anionic

Densilicate – Concrete Densifier

Appearance	Clear water-thin liquid
Solid Content (%)	>50% Reactive Silicate
VOC	0%
Thinning, Dilution Chemicals	Water Soluble
Application Conditions (Temp °C)	10 – 30 °C (DO NOT apply at Sub-Zero Temp)
Coverage Rate	5 sqm/L to be applied in multi applications

Water Based Acrylic Sealer

Appearance	Milky Liquid Emulsion
Solid Content (%)	27-29% Acrylate
VOC	0%
Thinning, Dilution Chemicals	Water Soluble (Use Water)
Application Conditions (Temp °C)	10 – 30 °C (DO NOT apply at Sub-Zero Temp)
Coverage Rate	5 sqm/L to be applied in multi applications
pH	8-9
Viscosity	100-500 cPs (Centipoise)

Direction

Traditional Polished Concrete is achieved through a series of mechanically grinding and polishing using products such as APC Grout and Densicure Densifier.

During the concrete polishing installation, the surface is processed through a series of steps using a Diamond Grinder and Polishing Pads which gives a stunning finish to any residential or commercial environment.

Alternatively, there is the APC Cut and Coat System where the concrete is ground down to expose the desired level of stone and then coated with a topical Urethane such as Tetrathane® or Liquathane® or an Epoxy such as EPO100G® Glaze which may also have a Urethane Tetrathane® top coat.

A great advantage of a Cut and Coat system is the finish is non-porous, therefore easier to keep floor stain free and is an easier system to install, typically less time and in most cases will be a more cost-effective alternative to mechanical polish system.

Both systems are very modern, attractive and a long-term solution and a great flooring alternative to other traditional flooring options.

Cut & Coat or Grind & Seal systems are a long term flooring solution. They are hard wearing, easy to clean and non-porous, providing a modern alternative for homes & commercial spaces. These systems are cost effective and provide a highend finish. Available in several different options which include high-gloss, semi-gloss & satin.

Shimicoat Standard Polishing Procedure:

- Remove all surface materials,
- Grind the surface using arrow 16 grit or PCDs to remove glue, epoxy and other top surface resins,
- Grind the surface using 30, 60, 80 Grits, progressively,
- Grind the surface 120 while pouring (watering can) splashes of Shimicoat Grouting Fluid (GROUTEX),
- Soft broom the fluid on the surface and continue grinding and smearing the grout paste all over the surface,

Grind the entire surface to remove any surface materials and Groutex residual.

DO NOT start Densifying the surface, unless you are 100% happy with the surface look, feel and appearance.

Next Day:

Grind the surface with 80 or 120 grit to remove any remaining GROUTEX.

Apply Densifier and using broom spread all over the surface, no puddling, no footprints. Wet the entire surface with Densifier and let it dry for an hour or so,

1. Grind the surface using Ceramic Disk (50 Grit),
 - Using micro-fiber mop wet the surface with Densilicate, No puddling, no step over wet surface
 - Polish using 50 Grit Resin Pad
 - Using micro-fiber mop wet the surface with Densilicate, No puddling, no step over wet surface
 - Polish using 100 Grit Resin Pad
 - Using micro-fiber mop wet the surface with Densilicate, No puddling, no step over wet surface
 - Polish using 200 Grit Resin Pad
 - Using micro-fiber mop wet the surface with Densilicate, No puddling, no step over wet surface
 - Polish using 400 Grit Resin Pad
 - Using micro-fiber mop wet the surface with Densilicate, No puddling, no step over wet surface
 - Polish using 800 Grit Resin Pad
2. Apply final sealer – Aqua Seal or Acrylic SHIMI Seal, or Epoxy.
3. Buff the floor with High-Speed Sanding Machine using 120 or higher grits.

Clean and dry surface. Ensure surface to be polished is free of all dirt, grease, oil, paint, curing agents and other contaminants. Removal of Oil Contamination by degreaser and alkaline cleaning pressure wash

Acid-wash to enhanced surface porosity and etch the surface.

NOTE: Surface preparation for polishing is different to Epoxy coating. Please read SHIMICOAT Polishing Procedure for further information.

Using a watering can or straight out of the drum, pour small quantity of SHIMICOAT Densilicate onto the surface. Spread out in zigzag and crisscross action, using a flat microfiber mop. DO NOT allow puddling, DO NOT walk over the wet surface. SHIMICOAT Densilicate creates a super-hard surface like Glass and it is important to apply uniformly without any footprints or roller marks. Apply at least 2 coats.

Read SHIMICOAT Polishing process for further information

For further information, please refer to SHIMICOAT Instruction for "Surface Preparations"



Warning:

- Please consult MSDS of the product prior to use.
- SHIMICOAT Densilicate will not penetrate through curing compounds or other coatings on the concrete being treated. These must be removed by mechanical means such as diamond grinding prior to application.
- Coverage and consumption rates will vary depending on the porosity and roughness of the concrete being treated. Stain resistance and sheen level will vary depending on the porosity and roughness of the concrete being treated.
- SHIMICOAT Densilicate works by reacting with Calcium Hydroxide available in the concrete. If the concrete had been rain affected or overworked in the laying process there may not be sufficient Calcium Hydroxide present for the reaction to occur. SHIMICOAT Densilicate will not rectify damaged concrete. In such situations, we recommend grinding and removal of the poor in Calcium Hydroxide and damaged top layer. The final grind may affect the overall characteristics of the floor. It is recommended to carry out grinding and slip trials on projects where slip may be of concern.
- SHIMICOAT Densilicate is not suitable for below freezing temperatures (Sub-Zero).
- Adverse weather conditions or humidity may affect cure time and application rates.

Storage

The products shall be stored out of direct sunlight and heat at all times. The shelf life of the product is 24 months, mix uniformly for 3 minutes prior to use.

For further information, please contact SHIMICOAT technical team.

DISCLAIMER

Material Safety Data Sheet, Technical and Environmental Data Sheet can be provided upon request.

The information provided in this document is guidance only and considering the uses of this product are beyond the seller's control, the product is sold without guarantees or warranties. Warranties and guarantees shall be governed by SHIMICOAT Standard Terms of Sale. The purchaser shall make its own tests to determine the suitability for their specific application, and Shimicoat Pty Ltd is taking no responsibility for misuse of the product. The purchaser assumes all risk of use and handling of this product. This product will be happily replaced or credited back if defective. Beyond this, Shimicoat Pty Ltd is not liable for any damages caused by this product or its use.

This information and all further technical advice are based on our present knowledge and experience.

The customer is not released from the obligation to conduct careful inspection and testing of supplied goods.



MATERIALS



CHEMICALS



RESINS



EQUIPMENT