

# VIRASEAL PU

## Aliphatic Transparent Polyurethane Binder and Sealer

### Description

**VIRASEAL PU** is single component, solvent free, UV resistant polyurethane binder and sealer that cures into a clear glossy finish. It has high mechanical properties and adhesion strength that can be used with colored aggregates to produce resin bounded decorative finishing for interior and exterior applications. The decorative system has good permeability to water (sustainable urban drainage) with extreme durability, excellent strength and flexibility performance and anti-slipping properties.

**VIRASEAL PU** is suitable to be used as a non-yellowing sealer for concrete with excellent wearing resistance and weather stability.

### Features & Benefits

- Single component, Easy to apply.
- Solvent Free, gloss finish
- Colorless, transparent.
- UV resistant, non-yellowing
- Excellent bonding and mechanical performance
- High adhesion properties
- Excellent resistance to chemicals
- Fast drying
- High flexibility

### Uses

**VIRASEAL PU** is used as a high-performance binder for decorative finishing with colored aggregates such as glass beads, colored quartz, crushed marble, and pebbles. Decorative aggregates mixed with **VIRASEAL PU** are casted on concrete floors to form highly durable decorative flooring finishes such as glass, stone and quartz carpets.

**VIRASEAL PU** may also be used as the base and embedding coat to receive decorative flakes such as mica and vinyl, forming decorative, multi-colored floors that are highly durable and easy to clean.

It can be used as an excellent wearing resistant sealer on dry concrete to protect from weather, UV, water, chemicals and other aggressive environments.

### Technical Properties

Appearance	Transparent Coating
Density	1,150 Kg/m <sup>3</sup>
Volume solids	100%
Pot life	60 minutes
Bonding Strength	≥3.5 N/mm <sup>2</sup>
Dry Film Thickness	150 microns
UV Resistance	No discoloration after 300hrs
Time for recoat	4 hours
Ready for light traffic	24 hours
Full cure	4 days
Shore D hardness	80
Chemical Resistance	
Acetic Acid (10%)	Excellent
Sodium Hydroxide (10%)	Excellent
Hydrochloric Acid (10%)	Excellent
Stain Resistance	Excellent

All values are subject to 5-10% tolerance

### Application Procedures

#### Surface preparation:

All surfaces should be clean, dry and free from dust and other contaminants. Wet substrates should be sponge dried to remove all free surface water then dried thoroughly. Treat oil or grease contamination with degreaser followed by water or steam cleaning. Contamination may be removed from surface by sandblasting, scarifying, or metallic abrasive blasting. The substrate must be fine textured since **VIRASEAL PU** applied in a thin coat. Smooth surfaces should be roughened by light grinding or other mechanical means. New concrete floors: should be at least 28 days old and have a moisture content of less than 5%. The relative humidity at the surface should not be more than 25% as per BS8201:1981. Excessive laitance should be

removed by mechanical methods. Dust and other debris should be removed by vacuum cleaning.

### Mixing Instruction

The entire contents of the resin container to be poured to pebbles container and the two materials mixed thoroughly for at least 3 minutes. Use a heavy-duty slow speed power drill with a jiffy mixing blade. Mix the two components in the quantities supplied taking care to ensure container is scraped clean. Do not add solvent thinners at any time. Do not mix for more than four minutes, then pour immediately to the floor.

### Application Instructions:

**VIRASEAL PU** is used either as a binder mixed with decorative aggregates or as a base coat and embedding coat for receiving decorative flakes

**As a binder:** **VIRASEAL PU** should not be mixed for more than four minutes. Pour into the container holding the aggregates. For small quantities, a slow speed hand mixer may be used; for large quantities it is recommended to use a drum mixer in order to insure **VIRASEAL PU** thoroughly wets the surface of the aggregates. For best results, it is not recommended to mix more than what can be applied in 15-20 minutes. Mix the aggregates and the resin for a maximum of 5 minutes, then pour the aggregate / resin mix on a concrete surface. Use screed guides on the floor to spread and screed the mix to the desired thickness, then use a trowel to compact the material properly. Use of a light weight power trowel might be possible in some cases to insure thorough compaction.

**As a Sealer:** Apply **VIRASEAL PU** using roller or spray machine. Minimum two coats are recommended, apply the first coat in a rate of 3-4 m<sup>2</sup> per Ltr and the second coat in a rate of 4-5 m<sup>2</sup> per Ltr.

Do not allow foot traffic before 24 hrs of the application. For heavy traffic material should allow for 4 days curing.

### Cleaning:

Clean hands, tools and equipment with SOLVENT 20.

### Yield/ Coverage

Coverage will vary according to the size and shape of the aggregates used, gradation of the aggregates,

surface roughness, and job conditions. For application as a binder, **VIRASEAL PU** should only wet the surface of the aggregates to provide the required adhesion between the aggregates.

Typically, the ratio of **VIRASEAL PU** to the aggregates should not be more than 10% by weight of aggregates. For 9 kg of 1-5 mm rounded pebbles and **VIRASEAL PU** of 1 kg the coverage rate is approximately 1.0 sq. m. when the pebble carpet is applied in 5 mm thickness. For application where **VIRASEAL PU** is used as a base coat for receiving decorative flakes, the coverage rate is 6 sq m/liter. For subsequent embedding coats over the flakes, expect the coverage to drop by at least half due to the increase in surface area.

### Packaging

**VIRASEAL PU** is available in 20Ltr Pail.

### Storage

Keep the product in dry and sheltered place at temperature between +5°C to +35°C. In these conditions and in closed original containers, the product will have a shelf life of at least 12 months.

### Health and Safety

Wear gloves, goggles to avoid any contact with eyes and skin. In case of splashes in the eyes wash abundantly with warm water and consult a doctor.

For further information or particular use, contact SBI Technical Department.

### Quality & Care

All products produced in SBI facilities are manufactured under a management system certified to conform to the requirements of the quality and environmental health & safety standards ISO 9001 & ISO 14001.

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