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SHIMICOAT
SURFACE SOLUTIONS



Clear Pump Polyaspartic

Fast Cure / UV Stable Clear Topcoat

Description

SHIMICOAT Clear Pump Polyaspartic is a rapid curing, two- component solvent-free, aliphatic Clear Pump Polyaspartic designed as a Decorative Finish and highly durable coating for floors and other surfaces, UV proof and non-yellowing.

PROPERTIES	Epoxy	Polyurethane	Clear Pump Polyaspartic
Curing	Slow - 12 Hours	Slow - 12 Hours	Fast - 4 Hours
Mix Ratio	3.5A:1B	3.5A:1B	1A:1B
UV Resistant	LOW Stability <i>"Yellowing Over Time"</i>	LOW Stability <i>"Yellowing Over Time"</i>	HIGH Stability "Non-Yellowing"
Outdoor Suitability	Not Suitable Under Sun	Not Suitable Under Sun	Ideally Suitable

Clear Pump Polyaspartic Resin Kits are used for convenient and accurate measurement of the correct ratios of Epoxy Resins quickly and accurately without any mess or waste of resin. The Pumps fit conveniently onto the Epoxy and Hardener containers for both sizes.

Pumps are calibrated at the factory when new but need to be periodically checked for accuracy as they are used. Each Pump Dispenses 8mL.

Industrial Heavy-Duty Pumps are included with all kit sizes. Clear Pump Polyaspartic is an industrial grade Polyaspartic coating material for high performance and heavy-duty applications. The product has various uses due to its excellent clarity, ideal viscosity and consistency as well many other common properties of SHIMICOAT Clear Polyaspartic products such as UV stability, fast curing, superior mechanical, chemical, electrical and adhesion properties to most substrates. Two components (A & B) comes in clear 100% solid Polyaspartic used as clear topcoat with chemical resistance and durability, ideal for variety of encapsulation, art, woodwork, craft and surface coating systems.

Clear Pump Polyaspartic is a high-quality solvent-less, odorless two component coating system for concrete surfaces such as driveways, pathways, workshops and warehouses providing a tough clear film, high gloss and wet look to protect surface from stains, spills and wear. Clear Pump Polyaspartic has been developed specifically for Australian conditions using the latest Polyaspartic technology. It provides excellent protection against weathering conditions and the splash and spillage of a wide range of chemicals.

Clear Pump Polyaspartic provides a highly durable, chalk resistant, wear and chemical resistance surface for concrete floors. High quality topcoat epoxy floor coating system that is solvent free when used as a clear un-pigmented coating or binder. The product can be tinted in all Australian Standard Colours. The surface may be laid as a thin film using roller applicator. The thickness of the coating can be reduced by addition of Diluent. Modern, hygienic, functional and economical surface.

 MATERIALS  CHEMICALS  RESINS  EQUIPMENT

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Clear Pump Polyaspartic resins are low viscosity Polyaspartic esters. Clear Pump Polyaspartic resins have low VOCs and a high resistance to solvents, bases and acids. They have excellent hardness, adhesion, mechanical strength, durability, UV resistance and a wider application temperature range compared to epoxy. Clear Pump Polyaspartic resins are compatible with many polyisocyanate curing agents.

Clear Pump Polyaspartic is a low viscosity, easy to handle product that gives high gloss finishes that are both hard and abrasion resistant. This material releases soil easily and has excellent resistance to a broad range of chemicals. Unlike conventional polyurea materials, Clear Pump Polyaspartic has enough working time to be applied by brush and roller. For exterior applications, a UV stabilizer package is incorporated to ensure long-term gloss retention and resistance to yellowing. Clear Pump Polyaspartic was developed as a high-performance coating for various protective coatings and seamless flooring applications. Clear Pump Polyaspartic is ideally suited for use as a finish coat in color chip/Flake and color quartz flooring, automotive repair facilities, aircraft hangars, clean rooms and various types of decorative architectural concrete applications.

Formulated with aliphatic chemistry, Clear Pump Polyaspartic is a non-yellowing colour UV stable without colour shifts seen with other coating systems such as epoxy and Clear Pump Polyaspartic. Clear Pump Polyaspartic is a 1:1 mix ratio system with sufficient pot life to be rolled with common SHIMICOAT flooring systems.

Clear Pump Polyaspartic is on the leading edge of easy to use, rapid curing UV proof clear Clear Pump Polyaspartic coatings system. It meets both current, and potential future, VOC requirements while retaining the desired fast return to service attributes that is highly desirable by many professional installers.

Clear Pump Polyaspartic can be applied directly to Concrete, Tiles, Epoxy Flake coatings, Clear Pump Polyaspartics as well as steel, galvanized steel and aluminum.

After over a decade of R&D, in-field use and advancements in formulations, Clear Pump Polyaspartic is a proven technology with demonstrated long-term performance.

Features

Clear Pump Polyaspartic Key Features:

- Ideal for both Outdoor and Indoor surfaces
- Ideally suitable for under-sun surfaces
- Superior abrasion resistance compared to Epoxy, Urethane and Acrylic
- Non-yellowing, complete UV Stable
- Semi-gloss Finish
- Chemical and corrosion resistant
- Suitable for water immersion
- Low viscosity
- Zero Solvent Content
- Zero VOC Content
- Cures at super low temperatures >1°C
- Dual-curing technology: Moisture Curing / Chemical Reaction Curing
- Easy mixing ratios (1:1)
- 98% Solid Content
- Non-Dangerous Good for transport purposes

Clear Pump Polyaspartic is in two parts A and B that you can open and use as you need and store the rest with shelf life of over 24 months. No matter how often you open the lid, it does not react with atmospheric moisture, so integrity of the product remains intact for its shelf-life, a few selected features of SHIMICOAT Clear Pump Polyaspartic are:

- Easy Application:
 - Rolled
 - Brushed
 - Squeegee
- Non-Yellowing Clear Topcoat
- Non-Hazardous – Non-Dangerous Goods
- Odoules
- High solid, solvent-free, highly reactive two-component protective coating
- Water Clarity and high transparency
- Impervious finish surface
- Good weather resistance, friction resistance and compression resistance
- Hardwearing finish surface
- Bond well with good permeability into the substrate
- Excellent adhesion to substrates such as concrete, ceramic tiles, wood, metal and even glass surfaces
- Excellent waterproof and anticorrosive properties
- Ideally suitable for waterproofing repairs on concrete and tiles indoor and outdoor
- Ideally suitable for under direct sunlight with extreme UV radiation
- Excellent mark and scuff resistance
- Excellent anti-graffiti coating
- Excellent resistance to oil and most household chemicals
- Excellent chemical resistance
- Excellent resistance to water
- Excellent resistance to alkalis and high pH conditions
- Ideal for Indoor and Outdoor
- Ready-to-use formulation without any need for dilution
- Advanced polymer technology to penetrate deep with high build properties
- Protect against waterborne contaminates
- Protect against salt ion ingress
- Protect against efflorescence, biological growth
- Produces a hard, crystal clear film
- Excellent resistance to weathering
- Long lasting and Durable
- Excellent adhesion
- Tintable in all Australian Standard Colours
- Forms a hard-wearing surface
- Very durable coating
- Good dry and through cure Easily Recoated
- Compatible with decorative and slip resistant coating materials
- Ideally suitable for both Indoor & Outdoor
- Economical

Application

SHIMICOAT Clear Pump Polyaspartic resins can be used for indoor and outdoor coatings of concrete, tiles, swimming pools, furniture, roofs, pipe coatings and many more. Direct-on application and Ideal for most surfaces:

- Grey Concrete
- Exposed Aggregate
- Limestone
- Decorative Concrete
- Epoxy Flake Floors topcoat
- Tiles and all Pavers
- Timber Surfaces
- Metal Surfaces
- Laminate
- Polished Concrete
- Tools and Appliances
- Fiberglass Reinforced Vinyl Esther
- Plastic surfaces
- Indoor & Outdoor

Creating a smooth impervious surface that's durable, UV Proof and Stylish.

Pack Size

Larger kit sizes are available for special orders.

Kit Sizes (Lt)	Mix Ratios
1Lt	1A:1B (0.5Lt A + 0.5Lt B)
2Lt	1A:1B (1Lt A + 1Lt B)
4Lt	1A:1B (2Lt A + 2Lt B)
6Lt	1A:1B (3Lt A + 3Lt B)
8Lt	1A:1B (4Lt A + 4Lt B)
10Lt	1A:1B (5Lt A + 5Lt B)
20Lt	1A:1B (10Lt A + 10Lt B)
40Lt	1A:1B (20Lt A + 20Lt B)

Colour Chart

Clear Amber Liquid A / Crystal Clear Liquid B

Coverage

5-10sqm/Lt Per Coat / Recommended Two Coats

Applications

Roller, Brush or Squeegee

Ideal for Topcoat Indoor & Outdoor Applications

Dry Time at 25°C

Touch Dry: 2 Hours (Depending on temperature, air flow and humidity)

Recoat: Every 4 hours if necessary

Foot Traffic: 4 Hours

Heavy Traffic: 48 Hours

Clean Up

Clean-Up with Xylene, EpoDil or AcryDil

Preparations

Clean and dry surface. Ensure surface to be coated 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

Ensure moisture free surface. Allow to completely dry, run Dry Test. Place a piece of plastic over a small area, tape the edges and leave for 1 hour. Remove plastic, if there is no moisture on either surface, concrete is sufficiently dry.

Ideally, always consider surface grinding and removal of loose materials. Grinding is always advisable prior to application of all Shimicoat Epoxy products, to maximize adhesion.

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

Specifications

Physical Properties:

Mix Ratios	1A:1B (Volume or Weight)
Appearance	Twin Pack Crystal Clear Low Viscosity liquid
Solid Content (%)	>95% Clear Pump Polyaspartic Polymer
Viscosity, Brookfield at 25 °C (cP)	100 – 250 – LOW
Amine content (mg KOH/g)	164 - 178
Amine hydrogen equivalent weight, approx. (g/mol)	326
Density, at 20 °C	A: 1.01 B: 1.05
Color (Gardner)	A: 1 – 2 B: ≤ 1
Flash point (°C)	>74 °C
Solvent Content / VOC	Nil
Relative Density (Water=1.00)	1.0
Pot Life (Min)	20min
Thinning, Dilution Chemicals	Xylene, EpoDil or AcryDil – Up to 5% Vol
Solubility	Miscible in Water – Soluble in Hydrocarbon Xylene
Application Conditions (Temp °C)	10 – 30 °C
Coverage Rate	5-10 sqm/L/Coat, Needs One Coat

Direction

Prime Prior to Pour:

Pump to Prime – Prior to Pour.

When you insert the push down pump into the bottle and screw up, there are air in tube and the pump neck. This air has to be displaced with Polyaspartic prior to any application ensuring accurate measurement of Polyaspartic dispensed, otherwise the mix ratio will be incorrect resulting in curing problems and non-compliance finish.

Cut the tube to the right size to ensure reaching the bottom of container, and insert into the bottle, tighten up and prime. Pump a few full strokes till you get the a few millimeters of Polyaspartic resin into you waste jar. Repeat this process for both Part A and Part B. DO NOT USE this product as the ratios are inaccurate. The pumps are now being primed and ready to use. Monitor when the bottles are almost empty and ensure you get the full amount for each pump.

Mixing:

Mix thoroughly for a minimum 3 minutes manual or with mechanical mixer at low speed (750rpm Max).

If mixing smaller portions mix at a ratio of 1A:1B by weight or volume. For example, to prepare 2Lt mix, add 1.0Lt of Part A (Resin) into 1Lt of Part B (Curative or Hardener). If colour required, add SHIMI COLOURS to the kit and mix again thoroughly prior to pour.

- Ensure surface to be coated is dry, moisture can cause blooming and delamination.
- Pot life is approximately 15 minutes, work within 15min to ensure easy flow application.
- SHIMI COLOURS, SHIMI METALLIC or SHIMI GLITTERS should be first added to Part A (Resin). Mix slowly using drill mixer on low speed. Mix for a few minutes to ensure completely homogenized without lump. Pour the bend into your tray and apply directly on the surface using the roller.
- Use steady long strokes and avoid overworking the roller or pushing your roller too quickly as this may trap air bubbles in the coating.
- Do not apply if the rain is expected within 24 hours of application.
- Not recommended for use below 10°C or above 35°C.
- Keep the containers sealed when not in use. Avoid application on hot surfaces.

Warning:

- Please consult MSDS of the product prior to use.
- Do Not Apply if rain is expected within 24 hours, when applying outdoor
- Surface Prep is crucial to ensure strong bonding. Surfaces such as Porcelain Tiles, Polished or Burnished Concrete are not suitable for coating due to lack of surface porosity.
- Sealed surfaces can become slippery when wet.
- DO NOT apply over existing low-quality sealers or coating materials
- USE only Clear Pump Polyaspartic over driveway or pool surroundings with extreme UV radiation
SHIMICOAT has a wide range of sealers for outdoor surfaces, driveway and under direct sun surfaces:
 - Clear Pump Polyaspartic,
 - Acrylic Sealers,
 - AQUAthane and AQUA SEAL
- Main three reasons detrimental to curing process of SHIMICOAT Crystal Clear UV Stable Clear Pump Polyaspartic:
 - Not mixed properly, mix for a minimum of 2 minutes using low speed electric mixer or paint mixer
 - Wet substrate with moisture content over 5%
 - Too Cold: Low atmospheric temperature, lower than 10 °C

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.

Shelf Life:

Shelf Life: 2 years unopened for both the Part A and B when stored inside out of direct sunlight at between 5C - 45°C (40°F to 110°F). Never leave containers open longer than necessary.

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.

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