

RESIDENTIAL
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INDUSTRIAL
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SHIMICOAT
SURFACE SOLUTIONS



Chemical Resistant Polyaspartic Fast Cure / UV Stable Clear Topcoat

Description

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

PROPERTIES	Epoxy	Polyurethane	Chemical Resistant 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 "Yellowing Over Time"	LOW Stability "Yellowing Over Time"	HIGH Stability "Non-Yellowing"
Outdoor Suitability	Not Suitable Under Sun	Not Suitable Under Sun	Ideally Suitable

Chemical Resistant Polyaspartic resins are low viscosity Chemical Resistant Polyaspartic esters. Chemical Resistant 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. Chemical Resistant Polyaspartic resins are compatible with many polyisocyanate curing agents.

Chemical Resistant 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, Chemical Resistant 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. Chemical Resistant Polyaspartic was developed as a high-performance coating for various protective coatings and seamless flooring applications. Chemical Resistant 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, Chemical Resistant Polyaspartic is a non-yellowing colour UV stable without colour shifts seen with other coating systems such as epoxy and Chemical Resistant Polyaspartic. Chemical Resistant Polyaspartic is a 1:1 mix ratio system with sufficient pot life to be rolled with common SHIMICOAT flooring systems. Chemical Resistant Polyaspartic is on the leading edge of easy to use, rapid curing UV proof clear Chemical Resistant 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.

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

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

 MATERIALS  CHEMICALS  RESINS  EQUIPMENT

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Features

Chemical Resistant 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

Chemical Resistant 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 Chemical Resistant 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 Chemical Resistant 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% Chemical Resistant 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

SHIMICOAT Chemical Resistant Polyaspartic can be applied directly on surface or over other epoxy and decorative materials such as Quartz, Flakes or Glitters.

SHIMI Quartz:

Remove excessive Quartz, cleanup, vacuum, broom or blow out loose Quartz. Ensure the floor has been uniformly prepared and all loose materials vacuumed or removed from the surface.

Apply using a suitable roller or spread with a squeegee then level by back-rolling in both Criss-Cross directions.

One coat of SHIMICOAT Crystal Clear Chemical Resistant Polyaspartic is enough for topcoat and two coats are ideal.

The second coat must be applied within 72 hours of the 1st coat being applied. Sanding may be required, if there is a between-coat interval gap of over 72hours.

Flake Flooring:

Ensure flaked floor has been uniformly scraped and all loose flakes vacuumed or removed from the surface.

Apply using a suitable roller or spread with a squeegee then level by back-rolling in both Criss-Cross directions.

One coat of SHIMICOAT Crystal Clear Chemical Resistant Polyaspartic is enough for topcoat and two coats are ideal.

The second coat must be applied within 72 hours of the 1st coat being applied. Sanding may be required, if there is a between-coat interval gap of over 72hours.

Direct on Concrete:

Over new concrete, ensure concrete is sufficiently cured (recommended minimum 28 days), with moisture content of less than 5%. Skim grinding of the surface may be required to remove surface materials such as concrete sealer, paint, algae, mildew, mould, oil, grease and loosely bonded concrete. If grinding is unavailable, we recommend acid wash followed by pressure cleaning. Allow to thoroughly dry before coating.

Please refer to the following SHIMICOAT Procedures for further details:

- Surface Preparation Procedure
- Concrete Moisture Test
- Concrete Acid Wash

Helpful Information:

- Calculate coverage rate of 5-7m² per litre depending on film build.
- Pot Life of the product is 45 minutes depending on the temperature, get it out of the mixing bucket and *on the floor* within 10min or less, to cool it down.
- Blend enough quantity that you can comfortably apply within your time-frame, not too much, not too little. We recommend 2.5Lt (one person) or 5Lt Max for two people mix at a time, and applying.
- By weight, Add 1 part of Part A into 4 parts of Part B.
- By volume, Add 1 part of Part A into 3.6 parts of Part B.
- Mix with slow RPM mixer or stick for 2-3 minutes gently and uniformly, in both directions. DO NOT introduce air into the product, avoid aggressive mixing.
- Use Neat. Only if necessary, dilute by adding up to 5% AcryDil, EpoDil or Xylene into the mix to make it easier to roll out and apply to the surface. Example of such situation is, during winter when temperature is closer to 10°C and resin is viscous or if you wish to thin it down during first application and allowing deeper penetration.
- Mix well and commence application using brush, roller or squeegee.

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 Chemical Resistant 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:
 - Chemical Resistant Polyaspartic,
 - *Acrylic Sealers,*
 - *AQUAthane and AQUA SEAL*
- Main three reasons detrimental to curing process of SHIMICOAT Crystal Clear UV Stable Chemical Resistant 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.