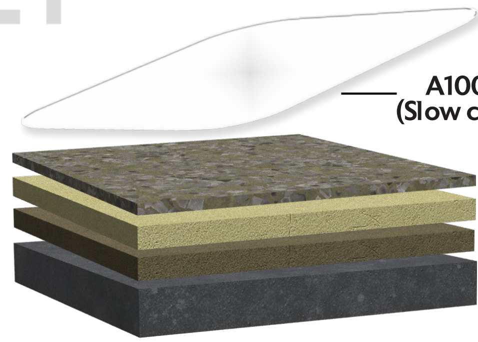
A100 TECHNICAL DATA SHEET

SD FLOOR

A100 is a two-component, regular-curing, no-odor, hybrid polyaspartic coating system designed as a decorative yet durable coating for commercial and industrial flooring. It is recommended for areas where a thin clear coat is desired over colored coatings or vinyl flake broadcast systems. A100 provides superior abrasion, chemical, and UV resistance with a crystal-clear glossy finish. A100 is a 1:1 mix ratio system with sufficient pot life to be rolled, brushed, or sprayed.



PACKAGING AND RECOMMENDED THICKNESS

- A100 is offered in the following kit sizes:
- 2 gallon kit (3.78L resin (A) and 3.78L hardener (B); bulk packaging also available upon request.
- Product coverage:
- Over primer: 200 ft²/gallon @ 8 mils
- Over vinyl flakes: 133-200 ft²/gallon @ 8 mils

APPLICATION AREAS

- Protective residential flooring surfaces
- Industrial shop floors
- UV-stable top coats
- Marine protection for fiberglass, steel, concrete or wood surfaces
- Offshore platforms, secondary containment, cooling towers, bridges
- Maintenance facilities
- Aircraft hangars
- Wastewater treatment applications

SURFACE PREPARATION

The substrate must be structurally sound, clean, and free from dust, dirt, grease, oil, laitance, curing agents, and other contaminants. Mechanical surface preparation, using diamond grinding, shot blasting, or high-pressure water blasting is recommended to achieve an ICRI-CSP 2 profile. If required, acid etching followed by thorough rinsing can enhance adhesion.

The surface must be dry before application, at least 3°C above the dew point to prevent condensation. A primer is recommended to promote adhesion and reduce air entrapment. Ensure proper environmental conditions for optimal curing.

MIXING

Mix Part A and Part B in a 1:1 ratio. In a clean, dry container, blend 1 gallon of Part A, 1 gallon of Part B, and 500 ml of pigment. Stir gently to avoid air entrapment and moisture absorption.

Mix above the dew point to prevent shortened pot life. No induction time is needed. If adding media agents, incorporate them after thoroughly mixing A and B.

Precautions:

- Large or heated batches will have a shorter pot life.
- Avoid application in direct sunlight under high heat or humidity.

PRODUCT RESTRICTIONS

- Not recommended for application at temperatures below 10°C / 50°F or above 35°C (95°F).
- Substrate temperature must be 3°C (5.5°F) above the measured dew point.
- Ambient humidity of the surroundings should not exceed 85% during application and during curing process.
- Avoid application on porous surfaces where moisture transfer may occur.
- Moisture content of the substrate must be < 8% at the time of application.
- Applying this product on a substrate without a moisture barrier may risk delamination due to hydrostatic pressure.
- Protect the freshly applied product from moisture, condensation, and water for at least 48 hours.

PRODUCT APPLICATION

Application Tools: Roller (ideally an 18″ industrial-grade phenolic resin core with a 1/8″–3/8″ synthetic nap or lambswool cover; de-aeration roller with spike cover), small chip brush, or 6–8″ wall edger.

CLEANING

Clean all application equipment with the specified cleaner. Once hardened, the material can only be removed mechanically. If splattered, wash immediately with hot, soapy water.

HEALTH AND SAFETY

Components A and B contain toxic ingredients. Consult the safety data sheet (S.D.S) for further information.

CHEMICAL RESISTANCE

Products	1 day	7 days
Hydrochloric acid, 10%	Excellent	Excellent
Hydrochloric acid, 30%	Excellent	Excellent
Nitric acid, 10%	Good	Weak
Phosphoric acid, 50%	Good	Good
Sulfuric acid, 37% (battery acid)	Excellent	Good
Acetic acid, 10%	Excellent	Excellent
Citric acid, 10%	Excellent	Excellent
Oleic acid	Excellent	Excellent
Ammonium hydroxide	Excellent	Excellent
Sodium hydroxide	Excellent	Excellent
Ethylene glycol (antifreeze)	Excellent	Excellent
Isopropyl alcohol	Good	Good
Methanol	Good	Weak
Aircraft fuel	Excellent	Excellent
Gasoline	Excellent	Excellent
Mineral spirits	Excellent	Excellent
Xylene	Excellent	Excellent
Mineral oil	Excellent	Excellent
Motor oil	Excellent	Excellent
Skydrol	Excellent	Excellent

PHYSICAL PROPERTIES

Solids by Weight:	100% (+/- 1%)
Shelf Life:	12 months in unopened containers
Vapor Permeance @18mil thickness	0.1 US perm, ASTM E96
MVER/RH @ 18 mil thickness	25lb./24hr./1000 ft2, ASTM F1869
Abrasion Resistance:	Taber abraser CS-17 calibrase wheel with 1000-gram total load and 1000 cycles = 10 mg loss
Flexural Strength:	5,500 psi, ASTM D638
Compressive Strength:	10,500 psi, ASTM D695
Tensile Strength:	6,500 psi, ASTM D638
Adhesion:	>300 psi, ASTM D4541 (concrete failure)
Hardness:	Shore D = 70-80
Application Temperature:	15°C-25°C with relative humidity below 85%
Drying Times:	25°C / 77°F @ 50% relative humidity (Cure times vary depending on temperature) Working time: 20-30 minutes at 25°C (77°F) Pot life per 2-gallon kit: 45-55 minutes Surface dry: 2-2.5 hours Re-coat time: 4-6 hours Foot traffic: 12-24 hours Light traffic: 2 days Full cure (heavy traffic): 7 days

TECHNICAL PROPERTIES

Max Ratio:	By volume: 1-part resin (A) to 1-part hardener (B) By weight: 100g of resin (A) to 107g of hardener (B)
Viscosity:	Mixed: 100 - 200 cps
Pot Life (207g):	50 - 60 minutes at room temperature

IMPORTANT NOTICE

The information in this document is accurate to the best knowledge of Shunda Polyurethane. And applies only to the specified material. It may not be valid when used with other materials or conditions. Users are responsible for verifying suitability and conducting tests before use. The Corporation makes no warranties, expressed or implied, regarding product performance.
Proper surface preparation and application are essential. Substrate moisture, chemicals, or improper curing may affect adhesion and durability. The Corporation is not liable for any damages or losses from improper use. Liability is limited to product replacement or refund as per the purchase agreement.

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