

POLY-90 - HYBRID HI-PERFORMANCE POLYASPARTIC

DESCRIPTION

POLY-90 is a two-component, hybrid polyaspartic coating system designed as a decorative yet durable coating for commercial and industrial flooring. Formulated with aliphatic chemistry, **POLY-90** is color stable, allowing UV exposure without color shifts seen with other coating systems such as epoxies. Poly-90 is a 2:1 mix ratio system with sufficient pot life to be rolled, brushed, or sprayed. It has a robust application window and can be applied at low temperatures and high humidity.

ADVANTAGES

- Low odor
- Cures at temperatures just above freezing
- UV resistant, non-yellowing, and color stable
- High-gloss
- Abrasion and impact resistance
- Micro-media traction agents can be introduced into the liquid system or dispersed into the top coat
- Chemical resistant, resistant to Skydrol
- Resistant to hot tire transfer

RECOMMENDED USES

- UV-stable top coat for concrete floor coatings
- Aircraft hangar floors
- Low temperature equipment
- Maintenance facilities
- Industrial shop floors
- Car washes or wash bays

PACKAGING		3 US gal (3 x 1 ga.) (7.57 L)
COLOR		Clear or Available Pigmented
RECOMMENDED THICKNESS¹	PRIMER	FINISH COAT
SOLID COLOR	8 - 10 mils WFT (200 - 160 sq.ft./ga.)	- Over solid color: 6 mils WFT (266 sq.ft./ga.) - Over vinyl chips: 12 mils WFT (134 sq.ft./ga.)
SHELF LIFE	12 months in original unopened factory sealed container. Keep away from extreme cold, heat, or moisture. Keep out of direct sunlight and away from fire hazards.	
MIX RATIO, BY VOLUME	A:B = 2A : 1B	
POT LIFE, 16 oz (500g) MASS	~20 minutes @ 77°F (25°C)	
WORKING TIME²	~15 minutes @ 75°F (25° C) ²	
VOC	121.8 g/L	

SURFACE PREPARATION

Concrete substrates should be cured for a minimum of 30 days and have a minimum compressive strength of 3,500 psi. Surfaces must be clean, sound, solid and properly prepared substrate. Remove all surface contamination. Prepared surface must be clean and dust free prior to application.

Preparation method should produce a uniform surface profile of CSP 3-4 (ICRI Guide 310.2R).

Do not apply to wet or damp substrates. Test for concrete moisture before application

PROPERTIES

@ 73°F (23°C) AND 50% RH.

	TACK-FREE	RECOAT TIME	FOOT TRAFFIC	HEAVY WHEELED TRAFFIC	FULL CURE
DRYING TIMES @ 72°F (22°C) 2	~1 - 2 hours	~2 - 4 hours	~2 - 4 hours	~24 hours	~4 - 7 days
ABRASION RESISTANCE ASTM D4060 CS17 Wheel/1,000 g/1000 cycles	30 mg loss				
ADHESION, ASTM D4541	>350 psi (Concrete fails)				
HARDNESS, ASTM 2240 (SHORE D)	59				
FLEXIBILITY, 1/8-in MANDREL, ASTM D1737	Pass				
TEAR STRENGTH (PLI), ASTM 2240	350				
VISCOSITY	Mixed 200 - 500 cP				
GLOSS, ASTM D523	95+ GU				
VOC	121.8 g/L				

¹ Recommended application thicknesses are stated for smooth surfaces. Rough surfaces may require more material or multiple coats. Maximum single application thickness, 12 mils.

² Drying and cure times will be affected by changing ambient conditions, rising or falling temperatures, changes in humidity, and air movement.

Thinning: Xylene recommended, not to exceed 5% x Vol

CONCRETE MOISTURE

- Note although moisture testing is critical it is not a guarantee against future moisture related problems. This is especially true if there is no vapor barrier or the vapor barrier is not functioning properly and or you suspect there is concrete contamination from oils, chemical spills or excessive salts.
- A functioning vapor barrier is required.
- Perform a water droplet test in multiple places to make sure the slab is porous. (Per ASTM 3191).
- Open the pore structure in any nonporous areas and retest before installing.

MIXING

- Precondition all components for 24 hours to ambient temperatures.
- In clean mixing pail, mix entire unit, A & B. Units are premeasured for correct ratio, do not break down units, product performance will be effected.
- Mechanically mix only, do not mix by hand. Do not mix more material than can be distributed and applied in the working time window. Using a Jiffy/Jiffler, or similar type mixing attachment, slowly mix the components being careful not to introduce excessive air.
- Mix for 3 minutes. Ensure all material is scraped by side wall and bottom of mixing container. Apply material to floor immediately after mixing.

CLEANING

Clean tools with appropriate solvent before curing. Cured material is very difficult to remove. Clean any spills and splashes before curing.

APPLICATION

The recommended application method is the use of non-marking rubber squeegee and roller application. Notched squeegees of the appropriate notch depth may be used for thicker applications.

18-inch rollers are recommended on larger area floors to reduce lap marks. Roller should have solvent-resistant phenolic core, high quality non-shedding fiber covers. Use 1/4-inch to 3/8-inch nap, depending on final finish and thickness desired. Quality brushes or wall-edgers may be used for cutting in margins.

Distribute material evenly with non-marking (gray EPDM type, or similar) rubber flat squeegee. Apply even film at desired thickness. Roll material in two directions to achieve uniform film. Finish roll in one direction, typically at right angles to primary sight-line when entering room.

- Avoid puddles of material
- Do not apply above recommended thickness

LIMITATIONS

Prior to application, measure, and confirm the ambient temperature and humidity conditions of air and substrate.

- Measure and confirm temperature of material. Precondition material for 24 hours prior to mixing.
- Do not allow material to freeze. Frozen material cannot be recovered and must be disposed of.
- Minimum/Maximum substrate temperature at application: 45°F (7.2°C) / 85°F (30°C).
- Maximum relative humidity during application and curing: 80%.
- Substrate must be 5°F (3°C) above dew point. Ensure conditions will not change during application and curing.
- Observe concrete moisture limitations stated in Concrete Moisture section.
- On porous, non-concrete substrates, ensure that there will be no moisture penetration on positive side.
- Protect from moisture and condensation for 24 hours after application.
- Do not apply to substrates exhibiting or tested positive for alkali silica reaction (ASR).
- Do not use propane or kerosene fueled heaters. Permanent discoloration of coating may occur.
- For professional use only by experienced personnel.
- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**

Prior to use of any product manufactured by APN Specialty Coatings, its subsidiaries or affiliates, the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at <https://purepoxy.com/> or by calling 920-231-0850.

HEATH & SAFETY

Obtain and wear all required personal protection equipment (PPE.) In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult with a doctor. For respiratory problems, transport victim to fresh air. Remove contaminated clothes and clean before reuse.

WARRANTY STATEMENT

APN Specialty Coatings Inc. warrants that products delivered to purchasers are manufactured free from material defects and workmanship flaws in accordance with APN Specialty Coatings Inc. published specifications, provided installation follows APN Specialty Coatings Inc. recommended procedures. APN Specialty Coatings Inc. disclaims liability for any damages arising from improper product usage that deviates from its intended purpose or fails to comply with APN Specialty Coatings Inc. installation standards. APN Specialty Coatings Inc. assumes no liability regarding product installation and processing methods. This technical data information serves as general reference material only. Prior to any installation work, please reach out to your regional PurEpoxy Representative or contact our Technical Service team for professional guidance.