



# PRODUCT TECHNICAL DATA SHEET

## POLYASPARTIC 87

Advanced Coating Systems

### HIGH PERFORMANCE ALIPHATIC POLYASPARTIC FINISH COAT

#### GENERAL PRODUCT DESCRIPTION

Polyaspartic 87 is a two-component, high solids, aliphatic, polyaspartic finish floor coating. It is formulated to give the highest solids content with the lowest viscosity (87% solids and 0-V.O.C.) while providing ample working time versus a traditional polyaspartic. Polyaspartic 87 provides a high gloss finish and is the product of choice for an interior/exterior top coat over most ONYX base systems. Polyaspartic 87 is often used as the top coat for the One Day Garage Floor System, which goes over an epoxy Chip System. As a general rule, it is recommended to keep vehicle traffic off of it for a minimum of 3 days during the summer months, and a minimum of 1 week during the winter months. However, this may vary due to environmental conditions. For durability, stain resistance, UV stability, and a finish coat which beautifies concrete for years, Polyaspartic 87 is unmatched.

#### ADVANTAGES

- 0-VOC High Solids
- Fast Curing
- High Gloss Finish
- Withstands Heavy Traffic
- Chemical Resistant
- UV Stability
- Mar Resistant
- Low Temperature Cure
- Color Stability

#### PRODUCT DATA

Volumetric Ratio: 1 to 1  
 Solids: 87 % by Volume  
 Application Temperature: 50-90°F and 5° above dew pt.  
 Pot Life: 15-20 minutes  
 Cure Time: 24 hrs (walking)  
 3 days - 1 wk (traffic)  
 Critical Recoat Time: 24 hours  
 Shelf Life: 1 year from date of manufacture  
 USDA Food and Beverage: Meets requirements for incidental contact

Cure time, pot life, and working time are based on a slab temperature of 70-75 F°, and will change accordingly as airflow and temperature changes. Thinner applications decrease rates, while thicker applications increase.

#### PACKAGING

Polyaspartic 87 is available in 2 different kit sizes:

	Part A	Part B
2 Gallon Kit	1 gallon	1 gallon
4 Gallon Kit	2 gallons	2 gallons
10 Gallon Kit	5 gallons	5 gallons

#### APPLICATIONS

- Garage Floors
- Decorative Chip / Quartz Floors
- Manufacturing
- Commercial Buildings / Walkways
- Restrooms
- Pharmaceutical
- Food Preparation
- Power Plants
- Electronic Plants
- Warehouses
- Aisle Ways
- Clean Rooms
- Automotive Showrooms / Service Bays
- Schools
- Retail

#### PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Tear Resistance	270 psi	ASTM D 1004
Tensile Strength	4,280 psi	ASTM D 412
Ultimate Elongation	60%	ASTM D 412
Gloss (60 deg)	90%	ASTM D 523
Coefficient of Friction	0.6 minimum	ASTM D 2047

#### COLORS

Polyaspartic 87 standard colors are: Clear, black, white, light gray, medium gray, dark gray, night gray, light beige, dark beige, sand beige, dark blue, tile red, safety red, and safety yellow.

#### SURFACE PREPARATION

Polyaspartic 87 is formulated to go over a preexisting broadcasted surface. Sand down or scrape the broadcast if needed to reach desired texture for the final finish. The concrete underneath the broadcasted system must be prepped the following way:

- Clean – Contaminants removed
- Profiled – Surface mechanically prepared
- Sound – Cracks repaired

Mechanical methods are required for preparing concrete prior to coating application. Refer to the data sheet of the base system to follow specific prep guidelines as pertains to the equipment used and the CSP level.

## MIXING

The mix ratio of Polyaspartic 87 is 1:1. That is, 1 Part of A - resin, to 1 Part of B - hardener.

1. Pre-mix Part A for about 45-60 seconds until uniform. Pour out the Part A into a clean, empty mixing bucket.
2. Add the Part B and mix for 90 seconds to 2 minutes until homogeneous. Be careful to scrape sides of bucket to insure that no unmixed material remains.
3. Immediately apply to the floor. Polyaspartic 87 in mass has a short pot life. Once poured out on the floor, approximately 20 minutes of working time can generally be expected.

## APPLICATION PROCESS

Polyaspartic 87 should only be used a final top coat over a smooth epoxy primer/coating or a broadcast base system (chips/quartz/silica). If installing over a smooth coating, use a coverage rate between 200-350 Sq Ft per gallon depending on desired thickness for durability and finish appearance as pulling it tighter will cause more of an orange peel finish. If installing over a broadcast base system (chips/quartz/silica), use a coverage rate around 100-200 Sq Ft per gallon depending on textured surface and desired finish. To create a smooth finish over a broadcast floor, 2 coats may be required. Refer to other ONYX data sheets for application of base systems that the Polyaspartic 87 will be applied over. As a general rule polyurethanes/polyaspartics should not be applied directly to concrete.

1. It is always best to apply in descending temperatures especially for exterior applications. Optimum ambient temperature should be between 50-90°F and 5° above the dew point during application.
2. Mix a gallon of resin using the above mixing instructions.
3. Apply by immediately pouring out on surface in a ribbon, while walking and pouring. Once poured out on the floor, approximately 20 minutes of working time can generally be expected.
4. Using a window squeegee on a pole, pull the coating evenly over substrate.
5. Using a 3/8" non-shedding phenolic (plastic) core paint roller, roll coating forwards and backwards.
6. Lastly, backroll in the opposite direction from step 5. Roll the floor in 1 continuous step without stopping and do not go back and touch up.

## PRODUCT LIMITATION

Always consult the ONYX Product Limitation Guidelines prior to installation as it contains additional pertinent information.

Ground level concrete slabs emit moisture vapor. The allowable vapor emissions for concrete is 3 lbs. per 1,000 Sq Ft over a 24 hour period. If vapor is above this level, then blistering and delamination of the coating may occur. A calcium chloride test, in accordance with ASTM F1869 Standards, should be performed to determine the concrete vapor level. If the vapor levels exceed the 3 lb. limit, a concrete vapor control system should be used before applying any coating system. Please contact the ONYX technical department for approved systems.

Coating systems are susceptible to cracking if the concrete moves or separates below the coating. Hence, joint and crack treatment should be reviewed prior to the coating application. As a general rule, control joints (saw cuts) and random cracks should be saw cut or chased first, then filled with the appropriate patch material. Construction joints (2 slabs which meet and hence move) should be treated. After the coating has been applied and cured, saw cut through the coating over construction joints.

## CLEANUP

Polyaspartic 87 while in a liquid state may be cleaned up with water and degreaser. Otherwise, a strong solvent may be required while the product is setting up

## WARRANTY

ONYX products are warranted for 1 year after date of manufacture. Please refer to the ONYX Concrete Coating's Limited Material Warranty for additional clarification.

## SAFETY

Consult Polyaspartic 87 safety data sheet. Avoid Polyaspartic 87 contact with eyes and skin. Always wear protective eyewear, clothing, and gloves. Safety always comes first.

## MAINTENANCE

Refer to the ONYX Maintenance and Cleaning Guidelines.