ONYX CONCRETE COATINGS

PRODUCT TECHNICAL DATA SHEET

POLYASPARTIC 83

Advanced Coating Systems

HIGH PERFORMANCE ALIPHATIC POLYASPARTIC FINISH COAT

GENERAL PRODUCT DESCRIPTION

Polyaspartic 83 is a two-component, high solids, aliphatic, polyaspartic finish floor coating. It is primarily used as a clear, final top coat over an epoxy metallic coating because of its low orange peel (when implementing the correct coverage rate of 150-175 Sq Ft per gallon) and low viscosity compared to most polyaspartics. It can also be used in traditional polyaspartic systems, such as garage floor chip systems. It is formulated to give the highest solids content with the lowest viscosity (83% solids and 0-V.O.C.) while providing a high gloss finish. As a general rule, it is recommended to provide 48 hours of cure time for foot traffic and 1 week for additional traffic. However, this may vary due to environmental conditions. For a low orange peel finish, low viscosity, durability, stain resistance, UV stability, and a finish coat which beautifies a flooring system for years, Polyaspartic 83 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:	83% 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 83 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

APPLICATIONS

- Entertainment Venues
- Showrooms
- Art Studios
- Creative Spaces
- Retail
- Hospitality
- Lobbies
- Offices
- Schools / Universities
- Residential
- Garages
- Dining Areas

PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Tear Resistance	270 psi	ASTM D 1004
Tensile Strength	4,280 psi	ASTM D 412
Ultimate Elongation	8.5%	ASTM D 412
Gloss (60 deg)	90%	ASTM D 523
Coefficient of Friction	0.6 minimum	ASTM D 2047

COLORS

Polyaspartic 83 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 83 is formulated to go over a preexisting coating surface. Lightly sand the existing coating to smooth out and remove any debris, dust particles or other imperfections. The concrete underneath the metallic 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.

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MIXING

The mix ratio of Polyaspartic 83 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 83 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 83 should only be used a final top coat over a metallic or other smooth epoxy coating. To reduce orange peel, install over a smooth epoxy surface at approximately 150-175 Sq Ft per gallon. 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 83 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 83 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 83 safety data sheet. Avoid Polyaspartic 83 contact with eyes and skin. Always wear protective eyeware, clothing, and gloves. Safety always comes first.

MAINTENANCE

Refer to the ONYX Maintenance and Cleaning Guidelines.

Information expressed in this data sheet is correct to the best of our knowledge. The technical data sheet does not constitute a warranty, expressed or implied as to the performance of this product. The use and application of this product is beyond our control. Warranty and liability therefore is limited to the replacement only for defective materials. Technical information is subjected to change without cause nor notice. Consult the ONYX website to confirm this is the most current issue date of the data sheet as information is subject to change.