

Poly Fast

TECHNICAL DATA SHEET



Description: Industrial & Commercial Fast-Set Polyaspartic Topcoat

Poly Fast is an 85% solids, two-component, aliphatic multifunctional polyurea / aspartic system. It can be clear or pigmented and is designed as a fast-set roll-down topcoat and finish coat for decorative and industrial flooring. Poly Fast provides a non-yellowing, very tough finish with excellent color retention, high chemical resistance, excellent adhesive properties and good elongation.

This product is compliant with USDA requirements for incidental food contact, is highly resistant to staining and tire marking, offers high UV resistance, and does not contain urethane.

85%

SOLIDS

1 : 1

MIX RATIO
BY VOLUME

10–15 min

POT LIFE
@ 70°F (FAST SET)

70°F

PROCESSING
TEMPERATURE

UNIQUE CHARACTERISTICS

The Poly Fast polyaspartic system is offered in fast, medium, and slow set profiles. Poly Fast is the fast-set version, intended for lower-humidity conditions and projects where fast application speed and fast return to service are important.

USES

- Decorative floor finishes
- Industrial floor coating
- Waterproofing polyurea thin-film applications
- Water feature applications
- Clear top coat for color chips and colored quartz
- Bonds to many substrates including fiberglass, wood, and plastic
- Concrete slabs, stairs, and pedestrian walkways
- Decks, wood structures, industrial wall and floor applications

ADVANTAGES

- Polyurea / Aspartic technology
- Cures to a very clear finish
- High tire stain resistance
- Excellent UV resistance
- Sets quickly
- Good working time
- Chemical resistant
- Excellent abrasive resistance
- Highly adhesive
- Beautiful clear appearance
- Waterproofing elastomeric systems
- Good elongation
- Fast turn-around floor applications
- Ideal for color chip and color quartz floors

GENERAL PHYSICAL CHARACTERISTICS

PROPERTY	TEST METHOD	VALUE
Solids	—	85%
Shelf Life	—	1 year
Pot Life on Surface @		
Fast Set / Fast Low Odor	—	10 – 15 minutes
Medium Set	—	15 – 25 minutes
Slow	—	25 minutes +
Hardness	ASTM D2240	Shore A 85 and Shore D 50
Mix Ratio	—	1 : 1
Tack Free	ASTM D2471	45 min to 1.5 hrs
Medium Speed Tack Free	—	2 – 4 hrs
Slow Speed Tack Free	—	3 – 5 hrs
Tensile Strength	ASTM D412	2,800 psi
Tear Strength	ASTM D470	850 lbs./in.
Abrasion (CS17)	ASTM D4060-90	4.0 mg / 1000 / 500
Gel Time	—	20 min @ 75°F
Permeability (MVT)	ASTM E96	0.053 grms. / hr. /
Elongation	ASTM D124	190% – 200%
Processing Temperature	—	70°F
Viscosity @ 25°C	—	Brookfield 450 cps
VOC Content	—	n/a
UV Resistant	—	High
Color	—	Clear (may be pigmented)
Packaging	—	Two-, ten-, and/or

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SURFACE PREPARATION

- Concrete must have a minimum 28-day cure prior to application.
- Remove curing agents, form release materials, oils, wax, moisture and any contaminants that may affect adhesion.
- Clean and wash to remove contaminants and maintain pH 8.0 – 11.0.
- Perform a moisture-vapor test before making the coating application.
- Provide a rough profile of minimum 2 mils. Review ASTM D4259 (Abrading Concrete) and ASTM F1869 (Measuring Moisture Vapor Emission).
- Repair all bug-holes, cracks, and spalls.
- Steel: Near white sand blast per SSPC-SP10 / NACE 2. Grind or blast welds, seams, edges, etc. smooth and provide 2 mil profile.
- Wood and fiberglass: Water-blast and dry. Fill cracks, splits, voids or holidays using compatible filler (e.g., ASTC 830).

PRIMING

- Use Penprime 7001.
- Allow a set time of about 1 – 2 hours before coating with Poly Fast.
- Do not exceed 4 – 6 hours before coating over primer.
- Use approximately 3 mils of primer before making the application.
- For clear coats over decorative floor base coats or where consistent clear color appearance is required, primer may not be needed. Always test the primer and top coat on your specific application before proceeding.

MOISTURE VAPOR REDUCTION

- Poly Fast may be applied over other compatible ASTC-type coatings or epoxy base coats.
- For best results over concrete surfaces, a moisture-vapor barrier such as a CMW-type system may be used as part of a complete system approach.

MIXING

- Use a jiffy mixer and a 650 rpm drill motor.
- Add Part B into Part A while mixing.
- Do not change the mixing proportions.
- Mix completely for approximately 1 – 2 minutes.
- Avoid mixing air into the blend.
- Mix at a 1:1 ratio in a separate clean pail, then immediately pour out on the surface, squeegee and back-roll.
- Fast-set product should not be allowed to remain in the mixing container.

RECOAT

- Recoat time window: 2 – 12 hours.
- Do not exceed twelve hours before recoating with additional coats as needed.
- If the recoat window is exceeded, sand lightly to produce a profile, wipe with acetone and recoat.

LIMITATIONS

- Best results over vapor barrier and with compatible surface repair products.
- Product data is subject to change without notice.
- For professional applicators only.

APPLICATION

- Application range: 55°F to 100°F.
- Apply using a notched squeegee or similar squeegee to move the product over the application area.
- Hot surfaces will accelerate the gel time of the product.
- Back-roll using a short nap roller, approximately 1/8" to 1/4".
- Apply in thin films of 5, 8, or 10 mils per coat.
- Do not apply thicker than 10 – 15 mils at one time.
- Test the coating on the application area to assure that your film thickness will not trap bubbles or cause a haze from being too thick in one application.

CHEMICAL RESISTANCE ASTM D543

CHEMICAL	RESULT
Sulfuric Acid 10%	No effect
Sulfuric Acid 30%	Moderate effect
Citric Acid 1%	No effect
Isopropyl 99%	Little effect
Jet Fuel / Diesel / Gasoline	No effect
Ammonia	No effect
Sodium Hydroxide	No effect
Sodium Hypochlorite 5%	No effect
Brake Fluid	No effect
MEK	Unsatisfactory

CURING TIME

- Approximately 2 – 4 hours for low foot traffic volume.
- Cure 5 – 8 hours for more foot traffic.
- Test surface cure to be sure the surface is ready for vehicles before allowing access.
- Cure time is dependent on environmental temperature and humidity.

SET TIME / ENVIRONMENTAL NOTES

- Product may set faster in hot or warm conditions and slower in cool or cold conditions.
- Pot life is affected by environmental temperature and humidity.
- High temperatures and high humidity will shorten the pot life and the spread time.
- Surface access time is affected by substrate temperature.
- Do not use on wet surfaces or expose Part A to moisture.
- Damp areas may require a moisture-tolerant epoxy fast-set primer.
- Do not use product that is hot over 90°F.
- Keep out of direct sunlight and store kits on wood pallets at room temperature.
- If product is excessively warm, mix a small amount first to determine the effect of heat on the pot life and set time.