

TURBO LINER

POLYUREA COATINGS

RECOMMENDATIONS FOR COATINGS AND COATINGS APPLICATIONS.

These are just that, “coatings recommendations” you must use your best judgment in deciding which steps to take based upon the substrate you are planning to coat.

If you are unsure of the substrate that you are planning to coat it is highly recommended that you do a test spray to make sure that you will receive good adhesion to the suspect substrate. If you do a test spray follow the steps for that specific substrate to test to see if good adhesion can be achieved. Our recommendation is to do at least a 1 to 2 SqFt. area if possible.

Remember a properly prepared substrate means good adhesion and a good coating, a poorly prepared substrate will give you poor adhesion and a resulting in bad coating.

Materials list and product description

Turbo Liner 11 & MPL55- Standard base polyurea hybrid for generalized coatings and bedliners. Good strength values, medium hardness yet flexible. Can be used on most all substrates. Fair color hold out on darker colors.

Turbo Liner 11 FR- Standard base polyurea hybrid for generalized coatings when flame retardant is required. Good strength values, medium hardness yet flexible. Can be used on most all substrates. Tinting is not recommended on this product as this affects the flame retardant value of the product. Turbo Liner 11 FR natural color is yellow.

Turbo Liner 5502- Standard base aromatic pure polyurea for generalized coatings and bedliners. A little better strength values then Turbo Liner 11, medium hardness yet flexible. Great for areas were foot traffic or vehicular traffic is a concern. Can be used on most all substrates. Good color holdout on medium to darker colors, Will darken over time.

Turbo Liner 5901- Standard base aromatic pure polyurea for generalized coatings. Great for areas were foot traffic or vehicular traffic is a concern. Good strength values yet very flexible. Can be used on most all substrates. Good color holdout on medium to darker colors, Will darken over time.

Turbo Liner MPL85- Premium polyurea hybrid for generalized coatings and bedliners. Good strength values, medium hardness yet very flexible. Can be used on most all substrates. Fair color hold out on darker colors.

Turbo Liner 7502- Premium aliphatic polyurea for industrial and generalized coatings. Great for areas were foot traffic is a concern. Good strength values yet flexible. Can be used on most all substrates. Superior color holdout on lighter and darker colors.

Any of the above products can be used in place of Turbo Liner 11 depending on the desired results needed.

Turbo Liner 6000, 6072 & 7072 Polyaspartic Topcoat- Aliphatic Polyaspartic coating, two-component, liquid applied. Turbo Liner 6072 is quick curing solvent base and the 6000 is a quick curing non-solvent based product specifically formulated to be installed in thin film applications over Polyurea's.

Turbo Liner Poly Glaze 100 Topcoat- Aliphatic urethane polyurea topcoat for use as a topcoating on hybrid and aromatic polyureas when UV and color stability is a concern. Very durable, good gloss and color retention. Great for areas where foot traffic or vehicular traffic is a concern.

Turbo Liner Poly Caulk 80- 100% solids self leveling polyurea caulking compound. Designed for joint crack filling

Turbo Liner Poly Prime 21- Epoxy polyamine primer designed for use on concrete, wood, steel and other substrates. With low odor and no solvents it helps aid in excellent adhesion to almost any substrate.

Turbo Liner EBF Primer- Epoxy polyamine filler primer surfacer designed for sealing in pores on concrete and concrete block surfaces. With low odor and no solvents it helps aid in excellent adhesion to almost any substrate.

EPDM or equivalent Rubber Tire Grindings- these come in an off white color in 50lb bags they are used for broadcasting added grip into polyurea coatings. Rubber tire grindings work best when using Turbo Liner Poly Glaze 100 as a topcoat. We stock the 16/30 mesh product and average pricing per 50lb bag is \$75.00 per bag and 44 bags per pallet no discounts are allowed on this product as it is considered a pass through item.

Coating new or old concrete, concrete block, stucco and other concrete surfaces:

Concrete must be fully cure per recommendation of concrete installer.

1. You have a couple of options for preparation of concrete once cured.

1A. High pressure heated power wash with an acid wash to remove cream form surface and expose aggregate.

1B. Sand blast to remove cream form surface and expose aggregate.

1C. On old existing concrete a concrete grinder may be used to expose the aggregate.

1D. If existing coating is present on substrate see step 1A or 1B

1E. On a block or stucco surface a high pressure heated pressure wash is recommended to remove old coatings.

*Make sure you have a good solid substrate with no loose material.

Without a sound substrate you will not get good adhesion.

2. If joint crack fill is required clean out joint cracks and use the pour tip assembly to apply the Poly Caulk 80 cutting off any excess once the caulking has had time to setup.

3. Priming the surface

3A. Once surface has been prepared as referred to in step 1 you must prime the surface with Turbo Liner Poly Prime 21 following the instructions carefully on the data sheet included in the following pages. If you have a very porous surface like some concrete blocks a block filler primer (Turbo Liner EBF Block Filler Primer) may be required in place of the Turbo Liner Poly Prime 21.

3B. If priming was needed allow primer to cure by recommendations on the that specific primers data sheets then the coating process can begin.

4. Once primed the coating process can begin.

4A. You have three options for your coating.

Option 1. Turbo Liner 11 only this would be used in areas where UV/Sunlight is not an issue. (light colors will fade or color will turn over

time. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat is applied)

Option 2. Turbo Liner 11 (use similar color to that of the topcoating) sprayed on followed by Turbo Liner Polyglaze 100 colored rolled on as the final coating. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat of Polyglaze 100 is applied)

Option 3. Turbo Liner 7502 colored this will give you the best color holdout for UV/Sunlight is not as much of an issue. Best possible color holdout of all polyureas. No other topcoat required. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat is applied)

Specific coatings notes for the applicator.

Coating Ceramic Tile or Stone:

1. Preparation of surface.

1A. High pressure heated pressure power with an acid wash to etch the surface.

1B. Sand blast to etch the surface.

1C. If existing coating is present see step 1A or 1B to clean old coating completely off the surface.

*Make sure you have a good solid substrate with no loose material.

Without a sound substrate you will not get good adhesion.

2. If joint crack fill is required clean out joint cracks and use the pour tip assembly to apply the Poly Caulk 80 cutting off any excess once the caulking has had time to setup.

3. Priming the Surface.

3A. Once surface has been prepared as referred to in step 1 you must prime the surface with Turbo Liner Poly Prime 21 following the instructions carefully on the data sheet included in the following pages. If you have a very porous surface a block filler primer (Turbo Liner EBF Block Filler Primer) may be required in place of the Turbo Liner Poly Prime 21.

3B. If priming was needed allow primer to cure by recommendations on the that specific primers data sheets then the coating process can begin.

4. Once primed the coating process can begin. You have three options for your coating.

Option 1. Turbo Liner 11 only this would be used in areas where UV/Sunlight is not an issue. (light colors will fade or color will turn over time. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat is applied)

Option 2. Turbo Liner 11 (use similar color to that of the topcoating) sprayed on followed by Turbo Liner Polyglaze 100 colored rolled on as the final coating. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat of Polyglaze 100 is applied)

Option 3. Turbo Liner 7502 colored this will give you the best color holdout for UV/Sunlight is not as much of an issue. Best possible color holdout of all polyureas. No other topcoat required. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat is applied)

Specific coatings notes for the applicator.

Coating Metal surfaces (steel, aluminum):

1. Preparation of surface.

1A. On Steel you must sandblast to a white metal blast to remove metal scale, surface rust and oils from the surface. If you are coating the steel right away once blasted clean off the surface and wipe with Acetone and proceed with the coating. If steel is not coated right away either prime the surface with Poly Prime 21 or EBF Primer.

1B. On aluminum flat surfaces abrade with 80 or 36 grit sand paper. Once the surface has been sanded clean the surface and proceed with the coating. It is recommended to coat aluminum right away.

*Make sure you have a good solid substrate with no loose material. Without a sound substrate you will not get good adhesion.

2. Priming if needed.

2A. Steel must be coated immediately after sand blasting. Steel will require priming with Poly Prime 21 or EBF Primer if not coated immediately after sand blasting otherwise surface rust will occur.

2B. Aluminum must be coated immediately after preparation.

2C. If priming is needed allow primer to cure by recommendations on the that specific primers data sheets then the coating process can begin.

3. You have three options for your coating.

Option 1. Turbo Liner 11 only this would be used in areas where UV/Sunlight is not an issue. (light colors will fade or color will turn over time. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat is applied)

Option 2. Turbo Liner 11 (use similar color to that of the topcoating) sprayed on followed by Turbo Liner Polyglaze 100 colored rolled on as the final coating. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat of Polyglaze 100 is applied)

Option 3. Turbo Liner 7502 colored this will give you the best color holdout for UV/Sunlight is not as much of an issue. Best possible color holdout of all polyureas. No other topcoat required. (For walking traffic

you may broadcast rubber tire grindings onto the surface as the first coat is applied)

Specific coatings notes for the applicator.

Coating Treated lumber:

1. Preparation of surface.

1A. The only way to coat treated lumber is to encapsulate it (spray all surfaces of lumber) the problem with coating treated lumber lies within the lumber its self. During the treating process treatment chemicals are forced into the woods surface. The problem is that when you spray treated lumber the materials reaction during the curing process makes the material very hot about 250-300 degrees F. The heat generated by this reaction causes the treating chemicals to rise to the surface of the wood. When this happens it will create small holes in the coating that are created buy the chemicals trying to escape form the lumber. Testing has shown that coating treated lumber will still extend the life of the lumber tremendously but you never have a completely sealed coatings surface. Priming the surface does nothing to stop this situation. The treatment chemicals will come right through the primer as it tries to escape.

2. You have two options for your coating.

Option 1. Turbo Liner 11 only this would be used in areas where UV/Sunlight is not an issue. (light colors will fade or color will turn over time. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat is applied)

Option 2. Turbo Liner 7502 colored this will give you the best color holdout for UV/Sunlight is not as much of an issue. Best possible color holdout of all polyureas. No other topcoat required. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat is applied)

Specific coatings notes for the applicator.

Coating Non Treated lumber and Plywood:

1. Preparation of surface.

1A. If need sand any sharp edged and remove any splintered areas form the lumber.

*Make sure you have a good solid substrate with no loose material.

Without a sound substrate you will not get good adhesion.

2. Priming the surface.

2A. If any glue or gaps are present you must prime the surface with Turbo Liner Poly Prime 21 following the instructions carefully on the data sheet included in the following pages.

2B. If priming was needed allow primer to cure by recommendations on the that specific primers data sheets then the coating process can begin.

3. You have three options for your coating.

Option 1. Turbo Liner 11 only this would be used in areas where UV/Sunlight is not an issue. (light colors will fade or color will turn over time. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat is applied)

Option 2. Turbo Liner 11 (use similar color to that of the topcoating) sprayed on followed by Turbo Liner Polyglaze 100 colored rolled on as the final coating. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat of Polyglaze 100 is applied)

Option 3. Turbo Liner 7502 colored this will give you the best color holdout for UV/Sunlight is not as much of an issue. Best possible color holdout of all polyureas. No other topcoat required. (For walking traffic you may broadcast rubber tire grindings onto the surface as the first coat is applied)

Specific coatings notes for the applicator.

Coating Plastics:

1. Preparation of surface.

1A. Some plastics are susceptible to extreme heat like that of the reaction you get when spraying polyurea. Unfortunately the only real way to tell weather a specific plastic will handle the heat reaction is to do a test spray. Usually the harder the plastic the better the chance you can coat it. You must always keep in mind that some plastics will not allow adhesion at all.

1B. To prep the plastic for coating you must first sand the entire surface with 80 grit sand paper on a DA sander. Once sanded blow the surface off with air and lightly wipe the surface with Acetone followed by a clean lint free rag.

2. You have three options for your coating.

Option 1. Turbo Liner 11 only this would be used in areas where UV/Sunlight is not an issue. (light colors will fade or color will turn over time.

Option 2. Turbo Liner 11 (use similar color to that of the topcoating) sprayed on followed by Turbo Liner Polyglaze 100 colored rolled on as the final coating.

Option 3. Turbo Liner 7502 colored this will give you the best color holdout for UV/Sunlight is not as much of an issue. Best possible color holdout of all polyureas. No other topcoat required.

Specific coatings notes for the applicator.

Application Concerns

Typical Application Thickness:

Foot traffic: 30-60mils (1.0-1.5mm)

Vehicular traffic: 60-80mils (1.5-2.0mm)

Heavy traffic: 80-125mils (2.0-3.2)

Wall applications: 30-60mils (0.8-1.5mm)

Immersion service: >80mils (>2.0mm)

The above recommendations can fluctuate depending on actual conditions.

Key Points while Spraying

- * Identification of thickness sprayed
- * Spray techniques - perpendicular, parallel, overlap, cross hatch, triggering, preventing ripples
- * Controlling exothermic reaction
- * Controlling over-spray
- * Identify and eliminate any spit from gun
- * Texture techniques
- * Spraying for aesthetics
- * Safe habits while spraying
- * Trouble: Pin holes, Blisters, Adhesion



TURBO LINER POLYPRIME 21

Product Data Sheet

Technical Data (Based on draw down film)

TURBO LINER POLYPRIME 21

Two-Component, High Solids, Epoxy-Polyamine Primer

Product Description:

Polyprime 21 is a two-component, high solids, liquid applied, epoxy-polyamine primer with unique penetrating characteristics. Polyprime 21 is ANSI/NSF 61 approved for direct contact with potable water.

Features

- Seamless
- Elastomeric
- Recoatable
- Meets California VOC and AQMD Requirements, Including SCAQMD Areas
- Chemical Resistance
- Waterproof

Coverage Rate	1 gal/300 sq. ft. 0.14 l/m ²
Dry Film Thickness per Coat	5 ± 1 mils 127 ± 25 microns
Pot Life at 75°F (24°C), 50% R.H.	20-30 min.
Hardness, ASTM D-2240	70 ± 5 Shore D
Specific Gravity, Part-A Part-B	1.09 1.07
Total Solids by Weight, ASTM D-2369	91%
Total Solids by Volume, ASTM D-2697	90%
Viscosity at 75°F (24°C) Part-A & Part-B combined	600 ± 50 cps
Volatile Organic Compounds, ASTM D-2369-81	0.75 lb/gal 90 gm/liter

Packaging

3 gallon kit: One 3.5 gallon pail, net fill 2 gallons (7.57 liters) of Part-A and One 1 gallon (3.78 liter) can of Part-B.

15 gallon kit: Two 5 gallon (18.9 liter) pails of Part-A and One 5 gallon (18.9 liter) pail of Part-B.

Mixing:

The volume mixing ratio is 2 parts Part-A Blue Liquid to 1 part Part-B Yellow Liquid.

Polyprime 21 Part-A and Part-B should be thoroughly mixed individually prior to combining to ensure a homogeneous material. Polyprime 21 must always be mixed with two parts Part-A and one part Part-B (Part-A: Part-B = 2:1). The combined components should be thoroughly mixed using a mechanical mixer at slow speed. Do not mix in an up and down motion.

Application:

Polyprime 21 should be applied at the rate of 1 gallon (mixture of Part-A & Part-B) /300 sq. ft. (0.14 liters/m²). Coverage rate will depend on surface roughness and porosity. It can be applied using an airless sprayer, brush, or phenolic resin core roller.

Allow Polyprime 21 to become tack free before applying the coating. Approximate tack free time is 4-6 hours at 75°F (24°C) and 50% relative humidity.

Recommended surface temperature should be greater than 50°F (10°C) and at least 5°F (3°C) above the dew point.

Polyprime 21 is very sensitive to heat and moisture. Higher temperatures and/or high humidity will significantly accelerate the cure time and pot life. Use caution in batch sizes and thickness of application.

Low temperature and/or low humidity extend the cure time.

Equipment Cleanup:

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use.

Storage:

Polyprime 21 has a shelf life of one (1) year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

Limitations:

Polyprime 21 should be coated within 12-16 hours after it has become tack free. Not UV stable. Surfaces must be dry, clean and free of foreign matter. Containers that have been opened must be used as soon as possible.

Polyprime 21 is difficult to clean up after it has cured. Do not dilute Polyprime 21. Mix no more material than can be used within 20 minutes.

Warning:

This product contains Epoxy Resin and Curatives

POLYPRIME 21 PRIMER

Limited Warranty:

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Turbo Liner Inc. representative or visit our website for current technical data and instructions.

Turbo Liner Inc. warrants its products to be free of manufacturing defects and that they will meet Turbo Liner Inc. current published physical properties. Turbo Liner Inc. warrants that its products, when properly installed by a state licensed waterproofing contractor according to Turbo Liner Inc. guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) year. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Turbo Liner Inc. of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Turbo Liner Inc. shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Turbo Liner Inc. shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Turbo Liner Inc. reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

Disclaimer:

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Turbo Liner Inc. makes no claim that these tests or any other tests, accurately represent all environments.

Rev. 7/30/14



**TURBO LINER
PRODUCTS INC.
1 W. CAMERON
KELLOGG, ID 83837
877-678-8726**

TURBO LINER POLYPRIME EBF
*100% Solids
Epoxy-Polyamine Filler Surfacer*

DESCRIPTION

Polyprime EBF is a two component, 100% solids, liquid applied, epoxy-polyamine filler surfacer with unique characteristic of sealing pores in concrete.

FEATURES

- ❖ Low Odor
- ❖ Solvent Free
- ❖ 100% Solids
- ❖ Excellent Adhesion

TYPICAL USES

- ❖ Concrete
- ❖ Glass Reinforced Plastics
- ❖ Polyurethane Elastomeric Surfaces

COLORS

Part-A: Black, Part-B: White

PACKAGING

2 gallon kit: One 1 gallon (3.78 liter) cans of Part-A Black Liquid, containing 1 gallon and one 1 gallon (3.78 liter) can of Part-B White Liquid, containing 1 gallon

10 gallon kit: One 5 gallon (18.9 liter) pails of Part-A Black Liquid, containing 5 gallons and one 5 gallon (18.9 liter) pail of Part-B White Liquid, containing 5 gallons

MIXING

The volume mixing ratio is 1 part Part-A Black Liquid to 1 part Part-B White Liquid.

Polyprime EBF Part-A and Part-B should be thoroughly mixed individually prior to combining to ensure a homogeneous material. Polyprime EBF must always be mixed with one part Part-A and one part Part-B (Part-A: Part-B = 1:1). The combined components should be thoroughly mixed using a mechanical mixer at slow speed or for at least 5 minutes if mixed by hand.

APPLICATION

Best method of applicaiton is to seal the concrete first with Polyprime 21 then applying Polyprime EBF to the surface to seal the pores of the concrete. Polyprime EBF can be applied using an airless sprayer, brush, phenolic resin core roller or trowel. Concentration will vary depending on the porosity of the substrate.

Allow Polyprime EBF to become tack free before applying the coating.

Recommended surface temperature should be greater than 50°F (10°C) and at least 5°F above the dewpoint.

TECHNICAL DATA

Coverage Rate	varies with substrate
Pot Life, 75°F (24°C) @ 50% R.H.	30-45 min.
Hardness, ASTM D-2240	70 ± 5 Shore D
Specific Gravity,	
Part-A	1.35
Part-B	2.03
Total Solids, Weight, ASTM D-2369	100%
Total Solids, Volume, ASTM D-2697	100%
Viscosity, at 75°F (24°C),	
Part-A & B combined	
Volatile Organic Compounds,	
ASTM D-2369-81	0 lbs/gal

Polyprime EBF is very sensitive to heat and moisture. Higher temperatures and/or high humidity will significantly accelerate the cure time and pot life. Use caution in batch sizes and thickness of application.

Low temperature and/or low humidity extend the cure time.

EQUIPMENT CLEANUP

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use.

STORAGE

Polyprime EBF has a shelf life of one (1) year from date of manufacture in original, factory sealed containers.

LIMITATIONS

Not UV stable.

Surfaces must be dry, clean and free of foreign matter.

Containers that have been opened must be used as soon as possible.

Polyprime EBF is difficult to clean up after it has cured.

Do not dilute Polyprime EBF.

Mix no more material than can be used within 20 minutes.

WARNING

This product contains Epoxy Resin and Curatives.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Turbo Products representative or visit our website for current technical data and instructions.

LIMITED WARRANTY

Turbo Products warrants its products to be free of manufacturing defects and that they will meet Turbo Products current published physical properties. Turbo Products warrants that its products, when properly installed by a state licensed waterproofing contractor according to Turbo Products guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) year. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Turbo Products of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Turbo Products shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Turbo Products shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Turbo Products reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Turbo Products makes no claim that these tests or any other tests, accurately represent all environments.



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DESCRIPTION

Poly-Caulk® 80 is a two component aromatic, 1:1 ratio, rapid setting, self leveling, 100% solids polyurea.

FEATURES

- ❖ 100% Solids Meets VOC Regulations
- ❖ Down Time 30-90 minutes
- ❖ Meets USDA Criteria
- ❖ Remains Flexible, Even In Cold Temperatures
- ❖ Meets California VOC and AQMD Requirements
- ❖ Flexible
- ❖ Odorless
- ❖ Non Toxic

USES

Poly-Caulk® 80 is used on interior and exterior horizontal concrete surfaces, to repair random cracks, control joints, and other areas where down time is limited.

- ❖ Food Processing Plants
- ❖ Bridge Headers
- ❖ Freezers and Cold Storage
- ❖ Waste Water Treatment Plants
- ❖ Parking Garage Decks
- ❖ Industrial/Manufacturing Facilities
- ❖ Airports
- ❖ Spalls
- ❖ Truck Aprons
- ❖ Grade Matching
- ❖ Saw/Utility Cuts

COLORS

Concrete Grey

PACKAGING

10 gallon kit: One 5 gallon pail of Side-A and one 5 gallon pail of Side-B.

100 gallon kit: One 55 gallon drum (net 50 gallons) of Side-A and 55 gallon drum (net 50 gallons) of Side-B.

COVERAGE RATES LF/Gallon

		Width of Joint						
		¼"	⅜"	½"	⅝"	¾"	⅞"	1"
Depth of Joint	¼"	308	205	154	123	102	88	77
	⅜"	205	136	102	82	68	58	51
	½"	154	102	77	61	51	44	38
	⅝"	123	82	61	49	41	35	30
	¾"	102	68	51	41	34	29	25
	⅞"	88	58	44	36	29	25	22
	1"	77	51	38	30	25	22	19

Coverages and yields shown do not include allowances for loss or waste and variations in job conditions. Each user must establish his own factors for loss from experience.

TURBO LINER POLY-CAULK 80
*100% Solids Self-Leveling
Polyurea Caulking Compound*

TECHNICAL DATA

Specific Gravity	
Part-A	1.09
Part-B	1.08
Viscosity at 80°F	
Part-A	430 cps
Part-B	550 cps
Gel Time @ 75°F, ASTM D-2471	50 seconds
Shore A hardness, ASTM D-2240	80 ± 2A
Tensile Strength, ASTM D-412	3000 ± 400 psi
Elongation, ASTM D-412	575 ± 50%
Tear Strength, ASTM D-624	343 pli

SURFACE PREPARATION

Allow concrete to cure 28 days before installation.

Saw cut the joint to ACI Recommendations.

All joints must be clean and dry prior to installing Poly-Caulk® 80.

If joint is damp, dry with heat torch.

Remove all dust from the concrete pores prior to installing Poly-Caulk® 80.

If backer rod is used in control joints, the recommended depth is not greater than 25% of the total depth of the slab.

Construction joints are to be filled to full depth using no backer rod or silica sand.

To repair T-joints, the joint should be cut a minimum of 25% of the total depth of the slab. The side of the T-joint must be cut 1½" from the joint and a minimum of ½" deep.

For random crack and spall repairs each side of the crack should be cut to create a minimum ½" deep vertical edge.

Ensure that all joint edges are at 90° angles to grade with no V-grooving or feather edges.

APPLICATION

For best results machine dispense using a 1:1 ratio pump, with or without heater as required.

This material can be applied at temperatures from -0°F (-1.8°C) to as high as 135°F (57°C).

The product needs to be conditioned at 75-80°F prior to use.

FINISHING

After applying Poly-Caulk® 80 wait 60-90 minutes.

Slice off any overpour flush to grade.

Open to traffic once Poly-Caulk® 80 has set.

Surface can be utilized within 90 minutes of application.

CLEAN UP

Cured product may be disposed of without restriction. Mix excess A and B material and allow to cure. Check local, state and federal laws before disposing of material.

STORAGE

Poly-Caulk® 80 should be stored at room temperature, 60-90°F (15-35°C).

Poly-Caulk® 80 has a shelf life of one (1) year from date of manufacture in original, factory sealed containers.

LIMITATIONS

Do not use in cracks, construction joints or control joints if surface is subject to thermal cycling.

Discoloration will occur if exposed to UV, however no change will occur in the physical properties.

WARNING

This product contains Isocyanates and Curatives.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Turbo Liner Products representative or visit our website for current technical data and instructions.

LIMITED WARRANTY

Turbo Liner Products warrants its products to be free of manufacturing defects and that they will meet Turbo Liner Products current published physical properties. Turbo Liner Products warrants that its products, when properly installed by a state licensed waterproofing contractor according to Turbo Liner Products guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) years. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Turbo Liner Products of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Turbo Liner Products shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Turbo Liner Products shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Turbo Liner Products reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Turbo Liner Products makes no claim that these tests or any other tests, accurately represent all environments.



TECHNICAL DATA SHEET
TURBO LINER® MPL 11
*Two Component Modified
 Polyurea Protective Coating*

Revised (4-19)

Product Description

Turbo Liner® MPL 11 is a two component, 1:1, 10 0% solids, fast set, liquid applied, modified polyurea liner system for metal, concrete, fiberglass and wood surfaces.

FEATURES

- » Seamless
- » Tough and Elastomeric
- » Chemical Resistant
- » Low Temperature Flexibility
- » Abrasion and Impact Resistant
- » High Build
- » Quick Drying

TYPICAL USES

- » Truck Bed Surfaces
- » Utility Vehicles
- » Cargo liners
- » Boat Linings
- » Waterproof Decking
- » Cargo Holds
- » Horse Trailers
- » Industrial Floorings
- » Walkways
- » Containment Areas
- » Encapsulation of Fiberglass Bodies and Polystyrene Foams

PACKAGING

- 10-gallon kit** 5 gallons (47 lbs. net) Part-A (Isocyanate side)
 5 gallons (43 lbs. net) Part-B (Resin side).
- 100 gallon kit:** 50 gallons (477 lbs. net) Part-A
 (Isocyanate side)
 50 gallons Part-B (Resin side) (neutral:
 426 lbs. net; black: 420 lbs. net)

Colors

Clear/Neutral. Custom colors are available upon request. Color Packs, when used, must be added to Part-B.

Due to its aromatic composition, Turbo Liner® MPL 11 will tend to yellow or darken in color and will become flat after exposure to UV light. Turbo Liner® MPL 11 may be topcoated within twelve hours of application with an aliphatic polyurethane/polyurea coating for a colorfast finish.

Coverage

Turbo Liner® MPL 11 may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sq. ft.

Surface Preparation

In general, coating performance and adhesion are directly proportional to surface preparation. Most failures in the performance of surface coatings can be attributed to poor surface preparation. Polyurea coatings rely on the structural strength of the substrate to which they are applied. All surfaces must be free of dust, dirt, oil, grease, rust, corrosion and other contaminants. When coating substrates previously used, it is important to consider the possibility of substrate absorption, which may affect the adhesion of the coating system, regardless of the surface preparation. Turbo Liner recognizes the potential for unique substrates from one project

TECHNICAL DATA (BASED ON DRAW DOWN FILM)

Mix Ratio by Volume	1A : 1B
Pot Life	5-10 seconds
Tack Free Time	40-60 seconds
Recoat Time	0-6 hours
Viscosity at 150-160°F (66.5-71°C) , Brookfield:	
Side-A	160 ± 20 cps
Side-B	40 ± 20 cps
Density (Side A & Side B Combined)	8.55 lbs/gal
Flash Point	> 200°F (93.3°C)
Hardness, ASTM D-2240	90 ± 5 Shore A
Tensile Strength, ASTM D-412*	3200 ± 300 psi 22.04 ± 2.07 MPa
Elongation, ASTM D-412*	450 ± 50%
Tear, ASTM D-412*	325 ± 50 pli 56.82 ± 8.74 kNm
Service Temperature	
Dry	-40°F - 250°F
Wet	40°F - 120°F
VOC Content	0gm/l
Recommended Applied Thickness	>2mm
Return to Service:	
Foot Traffic	2-4 hours
Full Service	10-24 hours
Taber Abrasion Resistance, ASTM D44060 (CS17 wheel, 1000 cycles, 1kg load)(maximum)	33 mg loss
Water Asorption, ASTM D471 (Maximum 23°C, 24 hours)	<1.0
Crack Bridging, ASTM C836 (-25°C, 1.6mm crack 25 Cycles)	Pass
Pull off Strength (Minimum) ASTM D4541	
Inter-Coat Adhesion (Within recoat time)	Excellent
Concrete (Shot-blasted profile) Substrate Failure	>500 psi
Concrete (Primed) Substrate Failure at	>500 psi
Steel (um blast profile)	>900 psi
Lineal Shrinkage	1-2%
Flexibility (3mm Mendrel Bend Test) ASTM D1737	PASS
Resistance to Weathering, ASTM G-23 Type QUV Weatherometer-2000 hrs exposure	No cracking or blistering Gloss reduction & Minor chalking are noted

(*These physical properties from sample sprayed with Graco Foam Cat 200 @ 2000 psi minimum, with Gusmer GX7-400 mechanical purge gun @ 150-160°F. Different machine and parameter will change these properties. User should perform their own independent testing as properties are approximate.)

to another. The following information is for general reference. For project-specific questions, contact Turbo Liner.

NEW AND OLD CONCRETE

Refer to SS PC-SP13/NACE 6, or ICRI 03732: CSP 3-5. New concrete must be cured for 28 days prior to product application. Surface must be clean, dry, sound and offer sufficient profile

for product adhesion. Remove all dust, dirt, oil, form release agents, curing compounds, salts, efflorescence, laitance and other foreign matter by shotblasting and/or suitable chemical means, in accordance with local chemical regulations. Rinse thoroughly, to achieve a pH between 8.0 and 11.0. Allow to dry completely. If old concrete has a surface that has deteriorated to an unacceptably rough surface, Turbo Liner Products PC-260 or a mixture of Polyprime 21 and sand should be used as a repair agent for cracks, spalls, bug holes and voids. Upon full cure of the repair agent, prime the entire surface intended for coating.

CONCRETE SURFACE PREPARATION REFERENCE

ASTM D425 8 - Standard practice for cleaning concrete. ASTM D4259 - Standard practice for abrading concrete. ASTM D4260 - Standard practice for etching concrete. ASTM F1869 - Standard test method for measuring moisture vapor emission rate of concrete. ICRI 03732 - Concrete surface preparation.

WOOD

All wood should be clean, dry and free of any knots, splinters, oil, grease or other contaminants. Splintered or rough areas should be sanded. Knots should be repaired using Turbo Liner Products PC-260 with sand. Upon full cure of the repair agent, prime the entire surface intended for coating.

STEEL (ATMOSPHERIC AND IMMERSION EXPOSURE)

Remove all oil, grease, weld spatters and round off any sharp edges from surface. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Optimum surface profile is 3-4 mils. Prime and shoot Turbo Liner® onto any bare metal the same day as it is cleaned to minimize any potential flash rusting.

GALVANIZED SURFACES

Clean and degrease any contaminated surfaces before priming. Do not blast galvanized surfaces with an abrasive grit. An adhesion test is recommended prior to starting the project.

FIBERGLASS REINFORCED PLASTIC

The gel coat should be lightly blasted or sanded with 80 grit sandpaper and cleaned.

PLASTIC FOAMS

Enhanced adhesion is obtained when the foam is mechanically abraded. When coating polystyrene, do not use a solvent-based primer.

TEXTILES, CANVAS, FABRICS

Adhesion to most fabrics, geothermal membranes and textiles does not require a primer.

STAINLESS STEEL

Stainless steel may be grit blasted and degreased before priming. Contact Turbo Liner Products for recommended primer. Some stainless steel alloys are so inert that it is not possible to achieve a satisfactory bond. An adhesion test is recommended prior to starting the project.

ALUMINUM

Aluminum should be blasted with aluminum oxide or sand, and not with steel or metal grit. Excessive blasting may result in a warped or deformed surface. After blasting, wash aluminum with a commercially available aluminum cleaner. Allow to dry, then prime. Contact Turbo Liner Products for recommended primer.

NEW AND OLD CAST IRON

Blast with a steel grit and degrease before priming. Old cast iron is difficult to prepare for a satisfactory bond. It can absorb oil and water soluble contaminants that will keep returning to the surface after the coating system has been applied and affect the coating system adhesion. An adhesion test is recommended prior to starting the project.

ALL OTHER SURFACES

An adhesion test is recommended prior to starting the project.

Mixing

Turbo Liner® MPL 11 may not be diluted under any circumstances. Thoroughly mix Turbo Liner® MPL 82 Part-B (Resin side) with air driven power equipment until a homogeneous mixture and color is obtained.

Application

Both Side-A and Side-B materials should be preconditioned to 75-80°F before application.

Recommended surface temperature must be at least 5°F above the dew point.

Turbo Liner® MPL 11 should be applied using a plural component, heated, high pressure 1:1 spray mixing equipment like Graco's Reactor, Glass Craft or other equivalent machine may be used.

Both Part-A and Part-B materials should be sprayed at a minimum of 2000 psi and at temperatures above 150°F. Adequate pressure and temperature should be maintained at all times.

Turbo Liner® MPL 11 should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

Storage

Turbo Liner® MPL 11 has a shelf life of six (6) months from date of manufacture, in factory-sealed containers.

Part-A and Part-B drums are recommended to be stored above 60°F.

Avoid freezing temperatures.

Store drums on wooden pallets to avoid direct contact with the ground.

If stored for a long period of time, rotate Part-A and Part-B drums regularly.

Limitations

Do not open until ready to use.

Both Part-A and Part-B containers must be fitted with a desiccant device during use.

Warning

This product contains Isocyanates and Curative Material.

Disclaimer: All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Turbo Liner Products makes no claim that these tests or any other tests, accurately represent all environments. © 2019 Turbo Liner Products. All rights reserved. **REV-201903AA**



**TURBO LINER
PRODUCTS INC.
1 W. CAMERON
KELLOGG, ID 83837
877-678-8726**

TURBO LINER® MPL 11 FR
*Fire Retardant,
Two Component Modified
Polyurea Protective Coating*
****Provisional****

DESCRIPTION

Turbo liner® MPL 11 FR is a fire retardant, two component, 1:1, 100% solids, fast set, liquid applied, modified polyurea liner system for metal, concrete, fiberglass and wood surfaces.

FEATURES

- ❖ Seamless
- ❖ Tough and Elastomeric
- ❖ Chemical Resistant
- ❖ Low Temperature Flexibility
- ❖ Abrasion and Impact Resistant
- ❖ High Build
- ❖ Quick Drying

TYPICAL USES

- ❖ Truck Bed Surfaces
- ❖ Utility Vehicles
- ❖ Cargo liners
- ❖ Boat Linings
- ❖ Waterproof Decking
- ❖ Encapsulation of Fiberglass Bodies and Polystyrene Foams
- ❖ Cargo Holds
- ❖ Horse Trailers
- ❖ Industrial Floorings
- ❖ Walkways
- ❖ Containment Areas

COLOR

Neutral or Black. Custom colors are available upon request.

PACKAGING

10 gallon kit: 5 gallons Side-A and 5 gallons Side-B.

100 gallon kit: Side-A 50 gallons and Side-B 50 gallons.

MIXING

Turbo liner® MPL 11 FR may not be diluted under any circumstances. Thoroughly mix Turbo liner® MPL 11 FR Side-B Base material with air driven power equipment until a homogeneous mixture and color is obtained.

Both Side-A and Side-B material must be thoroughly agitated until a homogenous mixture is obtained. Do not allow air to be incorporated into the product. Total suspension must be achieved.

COVERAGE

Turbo liner® MPL 11 FR may be applied at any rate to achieve desired thickness. Theoretical coverage per gallon is 1600 sq. ft. at 1 mil.

SURFACE PREPARATION

In general, coating performance is directly proportional to surface preparation. All surfaces must be free of oil, grease, dirt and other contaminants.

Carbon Steel: Remove all contaminants such as oil, grease, dirt, wax or any other chemical product prior to proceeding with surface preparation.

TECHNICAL DATA

Mix Ratio, by volume	1A:1B
Pot Life	2-5 seconds
Tack Free Time	10-30 seconds
Recoat Time	0-12 hours
Viscosity at 150-160°F (65.5-71°C), Brookfield:	
Side-A	800 ± 50 cps
Side-B	120 ± 20 cps
Density (Side-A & B Combined)	10.54 lbs/gal
Flash Point	>200°F
Hardness, ASTM D-2240	50 ± 5 Shore D
Tensile, ASTM 412-C	1200 ± 200 psi
Elongation, ASTM 412-C	100 ± 20%
Tear, ASTM 624-C	250 ± 30 pli
Service Temperature	-20°F to 250°F

A. Exterior coating: Abrasive Blast to SSSP, SP-10 (Near-white) with a surface profile of 12-22 mils.

B. Internal Lining: Abrasive Blast to SSSP-SP-5 (White metal) with a surface profile of 22-32 mils. Vacuum all surfaces to remove dust, etc., prior to application.

Concrete: Remove all contaminants such as oil, grease, dirt, form oil residue, wax or any other chemical product prior to proceeding with surface preparation.

A. Abrasive Blast using brush blast technique or better to achieve 2-3 mil anchor profile.

B. Vacuum to remove dust, etc., prior to application of primer or first coat.

C. Use fiberglass (C-Veil Glass) or a geotextile cloth to bridge cracks over the primed surface.

See Specification Guide for further detail.

APPLICATION

Turbo liner® MPL 11 FR Side-A materials should be preconditioned at 90-100°F and Side-B materials should be preconditioned at 75-80°F before application.

Both Turbo liner® MPL 11 FR Side-A and Side-B materials should be continuously agitated before and during application. Agitate at least 1 hour prior to application using heavy duty drum agitator.

Turbo liner® MPL 11 FR should be applied using a plural component, heated, high pressure 1:1 spray mixing equipment like Graco's Hydra Cat, Glas-Craft or other equivalent machine may be used.

Both Side-A and Side-B materials should be sprayed at temperatures above 150°F. Adequate pressure and temperature should be maintained at all times.

STORAGE

Turbo liner® MPL 11 FR has a shelf life of six (6) months from date of manufacture in original, factory sealed containers.

Avoid exposure to freezing temperatures for an extended period of time.

Store drums on wooden pallets to avoid direct contact with the ground.

If stored for a long period of time, rotate Side-A and Side-B drums regularly.

LIMITATIONS

Due to its aromatic composition, Turbo liner® MPL 11 FR will tend to yellow or darken in color after exposure to UV light. Turbo liner® MPL 11 FR may be topcoated with MPL Topcoat an aliphatic polyurethane coating for a color-fast glossy finish.

Do not open until ready to use.

Both Side-A and Side-B containers must be fitted with a desiccant device during use.

WARNING

This product contains isocyanate and curative material.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Turbo Liner Products representative or visit our website for current technical data and instructions.

SAFETY PRECAUTIONS

This product is for industrial use only by professional applicators and is not intended or suitable for use in or around a household or residential property. Keep away from children and household items. This material contains polyisocyanates. Vapors and spray mist are harmful. Improper handling and use may be hazardous. At all times safety precautions must be strictly followed during storage, handling and application.

WARNING

Individuals with chronic respiratory problems or prior respiratory reactions to such materials should not be exposed to vapors. All personnel entering the application area, including the applicator must wear properly fitted, NIOSH/MSHA approved, fresh air positive pressure air respirators with a full face piece or an air supplied hood.

Keep the material away from sparks, flash and open flames. Containers, even those that have been emptied, may contain dangerous and explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers. Do not pressurize containers to empty them.

LIMITED WARRANTY

Turbo Liner Products warrants its products to be free of manufacturing defects and that they will meet Turbo Liner Products current published physical properties. Turbo Liner Products warrants that its products, when properly installed by a licensed applicator according to Turbo Liner Products guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) year. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Turbo Liner Products of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Turbo Liner Products shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Turbo Liner Products shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Turbo Liner Products reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Turbo Liner Products makes no claim that these tests or any other tests, accurately represent all environments.



TURBO-LINER MPL85

*Two Component Modified
Polyurea Protective Coating*

DESCRIPTION

Turbo-Liner MPL85 is a two component, 1:1, 100% solids, fast set, liquid applied, modified polyurea liner system for metal, concrete, fiberglass and wood surfaces.

FEATURES

- ❖ Seamless
- ❖ High Build
- ❖ Tough and Elastomeric
- ❖ Quick Drying
- ❖ Chemical Resistance
- ❖ Cargo Skid Resistance
- ❖ Low Temperature Flexibility
- ❖ Abrasion and Impact Resistant

TYPICAL USES

- ❖ Truck Bed Surfaces
- ❖ Cargo Holds
- ❖ Utility Vehicles
- ❖ Horse Trailers
- ❖ Waterproof Decking
- ❖ Cargo liners
- ❖ Boat Linings
- ❖ Walkways
- ❖ Encapsulation of Fiberglass Bodies

COLOR

Clear/Neutral. Custom colors are available upon request. Color Packs, when used, must be added to Part-B.

Due to its aromatic composition, Turbo-Liner MPL85 will tend to yellow or darken in color and will become flat after exposure to UV light. Turbo-Liner MPL85 may be topcoated within twelve hours of application with an aliphatic polyurethane/polyurea coating for a colorfast finish.

PACKAGING

10 gallon kit: 5 gallons (47 lbs. net) Part-A (Isocyanate side) and 5 gallons (43 lbs. net) Part-B (Resin side).
100 gallon kit: 50 gallons (473 lbs. net) Part-A (Isocyanate side) and 50 gallons Part-B (Resin side) (Black: 433 lbs. net, Clear: 431 lbs. net).

COVERAGE

Turbo-Liner MPL85 may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sq. ft.

SURFACE PREPARATION

In general, coating performance and adhesion are directly proportional to surface preparation. Most failures in the performance of surface coatings can be attributed to poor surface preparation. Polyurea coatings rely on the structural strength of the substrate to which they are applied. All surfaces must be free of dust, dirt, oil, grease, rust, corrosion and other contaminants. When coating substrates previously used, it is important to consider the possibility of substrate absorption, which may affect the adhesion of the coating system, regardless of the surface preparation. Turbo Products recognizes the potential for unique substrates from one project to another. The following information is for general reference, and for project-specific questions, contact Turbo Products.

New and Old Concrete:

Refer to SSPC-SP13/NACE 6, or ICRI 03732: CSP 3-5. New concrete must be cured for 28 days prior to product application. Surface must be clean, dry, sound and offer sufficient profile for product adhesion. Remove all dust, dirt, oil, form release agents, curing compounds, salts, efflorescence, laitance and other foreign matter by shotblasting and/or suitable chemical means, in accordance with local chemical regulations. Rinse thoroughly, to achieve a pH between 8.0 and 11.0. Allow to dry completely. If old concrete has a surface that has deteriorated to an unacceptably rough surface, Turbo Liner 260 or a mixture of Turbo Liner 21 and sand should be used as a repair agent for cracks, spalls, bug holes and voids. Upon full cure of the repair agent, prime the entire surface intended for coating.

TECHNICAL DATA

Mix Ratio, by volume	1A:1B
Pot Life	3-5 seconds
Tack Free Time	20-40 seconds
Recoat Time	0-12 hours
Viscosity at 150-160°F (65.5-71°C), Brookfield,	
Part-A	120 ± 20 cps
Part-B	200 ± 20 cps
Density (Side-A & B Combined)	9.0 lbs/gal
Flash Point	>200°F
Hardness, ASTM D-2240	85 ± 5 Shore A
Tensile, ASTM 412-C	1500 ± 300 psi
Elongation, ASTM 412-C	200 ± 20%
Tear, ASTM 624-C	200 ± 40 pli
Service Temperature	-20°F to 250°F

(*These physical properties from sample sprayed with Graco Foam Cat 200 @ 2000 psi minimum, with Gusmer GX7-400 mechanical purge gun @ 150-160°F. Different machine and parameter will change these properties. User should perform their own independent testing as properties are approximate.)

Concrete Surface Preparation Reference: ASTM D4258 - Standard practice for cleaning concrete
ASTM D4259 - Standard practice for abrading concrete
ASTM D4260 - Standard practice for etching concrete
ASTM F1869 - Standard test method for measuring moisture vapor emission rate of concrete
ICRI 03732 - Concrete surface preparation

Wood: All wood should be clean, dry and free of any knots, splinters, oil, grease or other contaminants. Splintered or rough areas should be sanded. Knots should be repaired using Turbo Liner -260 with sand. Upon full cure of the repair agent, prime the entire surface intended for coating.

Steel (Atmospheric and Immersion Exposure): Remove all oil, grease, weld spatters and round off any sharp edges from surface. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Optimum surface profile is 2-3 mils. Prime and shoot Turbo-Liner MPL85 on to any bare metal the same day as it is cleaned to minimize any potential flash rusting.

Aluminum: Aluminum should be blasted with aluminum oxide or sand, and not with steel or metal grit. Excessive blasting may result in a warped or deformed surface. After blasting, wash aluminum with a commercially available aluminum cleaner. Allow to dry, then prime.

Brass and Copper: Brass and copper should be blasted with sand, and not with steel or metal grit. Remove all dust and grease prior to applying primer.

Galvanized Surfaces: Clean and degrease any contaminated surfaces before priming. Do not blast galvanized surfaces with an abrasive grit. An adhesion test is recommended prior to starting the project.

Fiberglass Reinforced Plastic: The gel coat should be lightly blasted or sanded with 80 grit sandpaper and cleaned.

Plastic Foams: Enhanced adhesion is obtained when the foam is mechanically abraded. When coating polystyrene, do not use a solvent-based primer.

Textiles, Canvas, Fabrics: Adhesion to most fabrics, geothermal membranes and textiles does not require a primer.

Stainless Steel: Stainless steel may be grit blasted and degreased before priming. Some stainless steel alloys are so inert that it is not possible to achieve a satisfactory bond. An adhesion test is recommended prior to starting the project.

New and Old Cast Iron: Blast with a steel grit and degrease before priming. Old cast iron is difficult to prepare for a satisfactory bond. It can absorb oil and water soluble contaminants that will keep returning to the surface after the coating system has been applied and affect the coating system adhesion. An adhesion test is recommended prior to starting the project.

All Other Surfaces: An adhesion test is recommended prior to starting the project.

MIXING

Turbo-Liner MPL85 may not be diluted under any circumstances. Thoroughly mix Turbo-Liner MPL85 Part-B (Resin side) with air driven power equipment until a homogeneous mixture and color is obtained.

APPLICATION

Both Side-A and Side-B materials should be preconditioned to 75-80°F before application.

Recommended surface temperature must be at least 5°F above the dew point.

Turbo-Liner MPL85 should be applied using a plural component, heated, high pressure 1:1 spray mixing equipment like Graco's Reactor, Glass Craft or other equivalent machine may be used.

Both Part-A and Part-B materials should be sprayed at a minimum of 2000 psi and at temperatures above 150°F. Adequate pressure and temperature should be maintained at all times.

Turbo-Liner MPL85 should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

STORAGE

Turbo-Liner MPL85 has a shelf life of six (6) months from date of manufacture, in factory-sealed containers.

Part-A and Part-B drums are recommended to be stored above 60°F.

Avoid freezing temperatures.

Store drums on wooden pallets to avoid direct contact with the ground.

If stored for a long period of time, rotate Part-A and Part-B drums regularly.

LIMITATIONS

Do not open until ready to use.

Both Part-A and Part-B containers must be fitted with a desiccant device during use.

WARNING

This product contains Isocyanates and Curative Material.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Turbo Products representative or visit our website for current technical data and instructions.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Turbo Products makes no claim that these tests or any other tests, accurately represent all environments.

TURBO-LINER 5901

Two Component Aromatic Polyurea Protective Coating

DESCRIPTION

Turbo-Liner 5901 is a fast set, rapid curing, 100% solids, flexible, aromatic, two component spray polyurea that can be applied to suitably prepared concrete and metal surfaces. Its extremely fast gel time makes it suitable for applications down to -20°F. It may be applied in single or multiple applications without appreciable sagging and is relatively insensitive to moisture and temperature allowing application in most temperatures.

FEATURES

- ❖ Excellent Thermal Stability
- ❖ No Toxic Vapors
- ❖ Meets USDA Criteria
- ❖ Seamless
- ❖ Low Temperature Flexibility
- ❖ Good Chemical Resistance
- ❖ Excellent Color Retention
- ❖ Coats Most Metals without Primer
- ❖ Installed With or Without Reinforcement in Transitional Areas
- ❖ Zero VOC
- ❖ Odorless
- ❖ 100% Solids
- ❖ Low Permeance Rate
- ❖ Non-Reactive

TYPICAL USES

- ❖ Airports
- ❖ Refineries
- ❖ Fertilizer Plants
- ❖ Mining Operations
- ❖ Food Processing Plants
- ❖ Marine Environments
- ❖ Secondary Containment
- ❖ Walkways and Balconies
- ❖ Water and Waste Water Treatment
- ❖ Industrial and Manufacturing Facilities
- ❖ Power Plants
- ❖ Structural Steel
- ❖ Warehouse Floors
- ❖ Cold Storage Facilities
- ❖ Landfill Containment
- ❖ Paper and Pulp Mills
- ❖ Parking Garage Decks

COLORS

Clear/Neutral. Custom colors are available upon request. Color Packs, when used, must be added to Part-B.

Due to its aromatic composition, Turbo-Liner 5901 will tend to yellow or darken in color and will become flat after exposure to UV light. Turbo-Liner 5901 may be topcoated within twelve hours of application with an aliphatic polyurethane/polyurea coating for a colorfast finish.

PACKAGING

10 gallon kit: 5 gallons Part-A (Isocyanate side) and 5 gallons Part-B (Resin side).

100 gallon kit: 50 gallons Part-A (Isocyanate side) and 50 gallons Part-B (Resin side).

COVERAGE

Turbo-Liner 5901 may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sq. ft.

SURFACE PREPARATION

In general, coating performance and adhesion are directly proportional to surface preparation. Most failures in the

TECHNICAL DATA

Mix Ratio by Volume	1A : 1B
Pot Life @ 150°F	3 - 5 secs
Tack Free Time	60 - 120 secs
Recoat Time	0 - 6 hours
Viscosity at 150-160°F (66.5-71°C), Brookfield:	
Part-A	50 ± 20 cps
Part-B	50 ± 20 cps
Density (Side A & B Combined)	8.75 lbs/gal
Flash Point	> 200°F
Hardness, ASTM D-2240*	85 ± 5 A
Tensile, ASTM D-412*	3000 ± 200 psi
Elongation, ASTM D-412*	650% ± 50%
Tear, ASTM D-412*	450 ± 50 pli
Service Temperature	-40°F to 300°F
Water Vapor Permeability, ASTM E-96	0.00042 gm/hr · in ²
VOC Content	0 gm/lit
Recommended Applied Thickness	> 2 mm
Return to Service: Foot Traffic	1 - 4 hours
Return to Service: Full Service	10 - 24 hours
Taber Abrasion Resistance, ASTM D-4060 (CS17 wheel, 1000 cycles, 1 kg load) (maximum)	28.1 mg loss
Water Absorption, ASTM D471 (max 23°C, 24 hrs)	< 0.5%
Crack Bridging, ASTM C836 (-25°C, 1.6mm crack, 25 cycles)	Pass
Impact Resistance @ 25°C	> 200 lbs
Pull-Off Strength (minimum), ASTM D-4541:	
Inter-Coat Adhesion (within recoat time)	Excellent
Concrete (Shot blast and primed profile), substrate failure occurred	> 500 psi
Steel (75-100 micron blast profile)	> 900 psi
Lineal Shrinkage	1 - 2%
Flexibility 1/8"(3mm) Mandrel Bend Test, ASTM D1737	Pass
Resistance to Weathering, ASTM G-23 (Type DH Weatherometer-2000 hrs exposure)	No cracking or blistering. Color change, gloss reduction & chalking are noted.

(*These physical properties from sample sprayed with Graco Foam Cat 200 @ 2000 psi minimum, with Gusmer GX7-400 mechanical purge gun @ 150-160°F. Different machine and parameter will change these properties. User should perform their own independent testing as properties are approximate.)

performance of surface coatings can be attributed to poor surface preparation. Polyurea coatings rely on the structural strength of the substrate to which they are applied. All surfaces must be free of dust, dirt, oil, grease, rust, corrosion and other contaminants. When coating substrates previously used, it is important to consider the possibility of substrate absorption, which may affect the adhesion of the coating system, regardless of the surface preparation. Turbo Products recognizes the potential for unique substrates from one project to another. The following information is for general reference, and for project-specific questions, contact Turbo Products.

New and Old Concrete:

Refer to SSPC-SP13/NACE 6, or ICRI 03732: CSP 3-5. New concrete must be cured for 28 days prior to product application. Surface must be clean, dry, sound and offer sufficient profile for product adhesion. Remove all dust, dirt, oil, form release agents, curing compounds, salts, efflorescence, laitance and other foreign matter by shotblasting

and/or suitable chemical means, in accordance with local chemical regulations. Rinse thoroughly, to achieve a pH between 8.0 and 11.0. Allow to dry completely. If old concrete has a surface that has deteriorated to an unacceptably rough surface, Turbo-Liner 260 or a mixture of Turbo-Liner 21 and sand should be used as a repair agent for cracks, spalls, bug holes and voids. Upon full cure of the repair agent, prime the entire surface intended for coating.

Concrete Surface Preparation Reference:

ASTM D4258 - Standard practice for cleaning concrete
ASTM D4259 - Standard practice for abrading concrete
ASTM D4260 - Standard practice for etching concrete
ASTM F1869 - Standard test method for measuring moisture vapor emission rate of concrete
ICRI 03732 - Concrete surface preparation

Wood:

All wood should be clean, dry and free of any knots, splinters, oil, grease or other contaminants. Splintered or rough areas should be sanded. Knots should be repaired using Turbo-Liner 260 with sand. Upon full cure of the repair agent, prime the entire surface intended for coating.

Steel (Atmospheric and Immersion Exposure):

Remove all oil, grease, weld spatters and round off any sharp edges from surface. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Optimum surface profile is 2-3 mils. Prime and shoot Turbo-Liner 5901 on to any bare metal the same day as it is cleaned to minimize any potential flash rusting.

Aluminum:

Aluminum should be blasted with aluminum oxide or sand, and not with steel or metal grit. Excessive blasting may result in a warped or deformed surface. After blasting, wash aluminum with a commercially available aluminum cleaner. Allow to dry, then prime.

Brass and Copper:

Brass and copper should be blasted with sand, and not with steel or metal grit. Remove all dust and grease prior to applying primer.

Galvanized Surfaces:

Clean and degrease any contaminated surfaces before priming. Do not blast galvanized surfaces with an abrasive grit. An adhesion test is recommended prior to starting the project.

Fiberglass Reinforced Plastic:

The gel coat should be lightly blasted or sanded with 80 grit sandpaper and cleaned.

Plastic Foams:

Enhanced adhesion is obtained when the foam is mechanically abraded. When coating polystyrene, do not use a solvent-based primer.

Textiles, Canvas, Fabrics:

Adhesion to most fabrics, geothermal membranes and textiles does not require a primer.

Stainless Steel:

Stainless steel may be grit blasted and degreased before priming. Some stainless steel alloys are so inert that it is not possible to achieve a satisfactory bond. An adhesion test is recommended prior to starting the project.

New and Old Cast Iron:

Blast with a steel grit and degrease before priming. Old cast iron is difficult to prepare for a satisfactory bond. It can absorb oil and water soluble contaminants that will keep returning to the surface after the coating system has been applied and affect the coating system adhesion. An adhesion test is recommended prior to starting the project.

All Other Surfaces:

An adhesion test is recommended prior to starting the project.

MIXING

Turbo-Liner 5901 may not be diluted under any circumstances. Use appropriate cleaner for purge line and flushing of equipment and if spraying stops for periods exceeding the pot life of the material. Thoroughly mix Turbo-Liner 5901 Part-B (Resin side) with air driven power equipment until a homogeneous mixture and color is obtained.

APPLICATION

Both Side-A and Side-B materials should be preconditioned to 75-80°F before application.

Recommended surface temperature must be at least 5°F above the dew point.

Turbo-Liner 5901 should be applied using a plural component, heated, high pressure 1:1 spray mixing equipment like Graco's Reactor, Glass Craft or other equivalent machine may be used.

Both Part-A and Part-B materials should be sprayed at a minimum of 2000 psi and at temperatures above 150°F. Adequate pressure and temperature should be maintained at all times.

Turbo-Liner 5901 should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

STORAGE

Turbo-Liner 5901 has a shelf life of six (6) months from date of manufacture, in factory-sealed containers.

Part-A and Part-B drums are recommended to be stored above 60°F. Avoid freezing temperatures.

Store drums on wooden pallets to avoid direct contact with the ground.

If stored for a long period of time, rotate Part-A and Part-B drums regularly.

LIMITATIONS

Do not open until ready to use.

Both Part-A and Part-B containers must be fitted with a desiccant device during use.

WARNING

This product contains Isocyanates and Curative Material.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Turbo Products representative or visit our website for current technical data and instructions.

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TURBO-LINER 5502

Two Component Aromatic Polyurea Protective Coating

DESCRIPTION

Turbo-Liner 5502 is a fast setting, rapid curing, 100% solids, flexible, aromatic, two component spray polyurea that can be applied to suitably prepared concrete and metal surfaces. Its extremely fast gel time makes it suitable for applications down to -20°F. It may be applied in single or multiple applications without appreciable sagging and is relatively insensitive to moisture and temperature allowing application in most temperatures. Turbo-Liner 5502 offers a tack free time of less than sixty seconds and exhibits 450% elongation upon curing with 50 Shore D hardness.

FEATURES

- ❖ Zero VOC (100% Solids)
- ❖ Excellent Thermal Stability
- ❖ Low Temperature Flexibility
- ❖ Good Chemical Resistance
- ❖ Coats Carbon or Mild Steel Metals without Primer
- ❖ Installed With or Without Reinforcement in Transitional Areas
- ❖ Seamless
- ❖ Odorless
- ❖ Meets USDA Criteria

TYPICAL USES

- ❖ Airports
- ❖ Refineries
- ❖ Fertilizer Plants
- ❖ Mining Operations
- ❖ Food Processing Plants
- ❖ Marine Environments
- ❖ Secondary Containment
- ❖ Walkways and Balconies
- ❖ Water and Waste Water Treatment
- ❖ Industrial and Manufacturing Facilities
- ❖ Power Plants
- ❖ Structural Steel
- ❖ Warehouse Floors
- ❖ Cold Storage Facilities
- ❖ Landfill Containment
- ❖ Paper and Pulp Mills
- ❖ Parking Garage Decks

COLORS

Clear/Neutral. Custom colors are available upon request. Color Packs, when used, must be added to Part-B.

Due to its aromatic composition, Turbo-Liner 5502 will tend to yellow or darken in color and will become flat after exposure to UV light. Turbo-Liner 5502 may be topcoated within twelve hours of application with an aliphatic polyurethane/polyurea coating for a colorfast finish.

PACKAGING

10 gallon kit: 5 gallons Part-A (Isocyanate side) and 5 gallons Part-B (Resin side).

100 gallon kit: 50 gallons Part-A (Isocyanate side) and 50 gallons Part-B (Resin side).

COVERAGE

Turbo-Liner 5502 may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sq. ft.

SURFACE PREPARATION

In general, coating performance and adhesion are directly proportional to surface preparation. Most failures in the performance of surface coatings can be attributed to poor surface preparation. Polyurea coatings rely on the structural

TECHNICAL DATA

Mix Ratio by Volume	1A : 1B
Pot Life @ 150°F	4 - 8 secs
Tack Free Time (thickness & substrate temperature dependent) ...	45 - 60 secs
Recoat Time.....	0 - 6 hours
Viscosity at 150-160°F (66.5-71°C), Brookfield:	
Part-A	50 ± 20 cps
Part-B	50 ± 20 cps
Density (Side A & B Combined)	8.81 lbs/gal
Flash Point	> 200°F
Hardness, ASTM D-2240	50 ± 5 D
Tensile, ASTM D-412*	3500 ± 200 psi
Elongation, ASTM D-412*	450% ± 50%
Tear, ASTM D-412*	450 ± 50 pli
Service Temperature	-40°F to 250°F
Water Vapor Permeability, ASTM E-96	0.361 perm-inch
VOC Content	0 gm/lit
Recommended Applied Thickness	> 2 mm
Return to Service: Foot Traffic	1 - 4 hours
Return to Service: Full Service	> 24 hours
Taber Abrasion Resistance, ASTM D4060	
(CS17 wheel, 1000 cycles, 1 kg load) (maximum)	6 mg loss
Water Absorption, ASTM D471	
(maximum 23°C, 24 hours)	< 0.5%
Crack Bridging, ASTM C836	
(-25°C, 1.6mm crack, 25 cycles)	Pass
Impact Resistance @ 25°C (ASTM G14)	> 200 lbs
Pull-Off Strength (minimum), ASTM D4541:	
Inter-Coat Adhesion (within recoat time)	Excellent
Concrete (Shot blasted profile), substrate failure occurred	> 500 psi
Concrete (Primed), substrate failure occurred	> 500 psi
Steel (90 um blast profile)	> 900 psi
Lineal Shrinkage	1 - 2%
Flexibility (1/8" 3mm Mendrel Bend Test), ASTM D1737 ...	Pass
Resistance to Weathering, ASTM G-23	
(Type QUV Weatherometer-3000 hrs exposure)	No cracking or blistering. Color change, gloss reduction & chalking are noted.

(*These physical properties from sample sprayed with Graco Foam Cat 200 @ 2000 psi minimum, with Gusmer GX7-400 mechanical purge gun @ 150-160°F. Different machine and parameter will change these properties. User should perform their own independent testing as properties are approximate.)

strength of the substrate to which they are applied. All surfaces must be free of dust, dirt, oil, grease, rust, corrosion and other contaminants. When coating substrates previously used, it is important to consider the possibility of substrate absorption, which may affect the adhesion of the coating system, regardless of the surface preparation. Turbo Liner Products recognizes the potential for unique substrates from one project to another. The following information is for general reference, and for project-specific questions, contact Turbo Liner Products

New and Old Concrete:

Refer to SSPC-SP13/NACE 6, or ICRI 03732: CSP 3-5. New concrete must be cured for 28 days prior to product application. Surface must be clean, dry, sound and offer sufficient profile for product adhesion. Remove all dust, dirt, oil, form release agents, curing compounds, salts, efflorescence, laitance and other foreign matter by shotblasting and/or

suitable chemical means, in accordance with local chemical regulations. Rinse thoroughly, to achieve a pH between 8.0 and 11.0. Allow to dry completely. If old concrete has a surface that has deteriorated to an unacceptably rough surface, Turbo-Liner 260 or a mixture of Turbo-Liner 21 and sand should be used as a repair agent for cracks, spalls, bug holes and voids. Upon full cure of the repair agent, prime the entire surface intended for coating.

Concrete Surface Preparation Reference:

ASTM D4258 - Standard practice for cleaning concrete
ASTM D4259 - Standard practice for abrading concrete
ASTM D4260 - Standard practice for etching concrete
ASTM F1869 - Standard test method for measuring moisture vapor emission rate of concrete
ICRI 03732 - Concrete surface preparation

Wood:

All wood should be clean, dry and free of any knots, splinters, oil, grease or other contaminants. Splintered or rough areas should be sanded. Knots should be repaired using Turbo-Liner 260 with sand. Upon full cure of the repair agent, prime the entire surface intended for coating.

Steel (Atmospheric and Immersion Exposure):

Remove all oil, grease, weld spatters and round off any sharp edges from surface. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Optimum surface profile is 2-3 mils. Prep and shoot Turbo-Liner 5502 on to any bare metal the same day as it is cleaned to minimize any potential flash rusting.

Aluminum:

Aluminum should be blasted with aluminum oxide or sand, and not with steel or metal grit. Excessive blasting may result in a warped or deformed surface. After blasting, wash aluminum with a commercially available aluminum cleaner. Allow to dry, then prime.

Brass and Copper:

Brass and copper should be blasted with sand, and not with steel or metal grit. Remove all dust and grease prior to applying primer.

Galvanized Surfaces:

Clean and degrease any contaminated surfaces before priming. Do not blast galvanized surfaces with an abrasive grit. An adhesion test is recommended prior to starting the project.

Fiberglass Reinforced Plastic:

The gel coat should be lightly blasted or sanded with 80 grit sandpaper and cleaned.

Plastic Foams:

Enhanced adhesion is obtained when the foam is mechanically abraded. When coating polystyrene, do not use a solvent-based primer.

Textiles, Canvas, Fabrics:

Adhesion to most fabrics, geothermal membranes and textiles does not require a primer.

Stainless Steel:

Stainless steel may be grit blasted and degreased before

priming. Some stainless steel alloys are so inert that it is not possible to achieve a satisfactory bond. An adhesion test is recommended prior to starting the project.

New and Old Cast Iron:

Blast with a steel grit and degrease before priming. Old cast iron is difficult to prepare for a satisfactory bond. It can absorb oil and water soluble contaminants that will keep returning to the surface after the coating system has been applied and affect the coating system adhesion. An adhesion test is recommended prior to starting the project.

All Other Surfaces:

An adhesion test is recommended prior to starting the project.

MIXING

Turbo-Liner 5502 may not be diluted under any circumstances. Thoroughly mix Turbo-Liner 5502 Part-B (Resin side) with air driven power equipment until a homogeneous mixture and color is obtained.

APPLICATION

Both Side-A and Side-B materials should be preconditioned to 75-80°F before application.

Recommended surface temperature must be at least 5°F above the dew point.

Turbo-Liner 5502 should be applied using a plural component, heated, high pressure 1:1 spray mixing equipment like Graco's Reactor, Glass Craft or other equivalent machine may be used.

Both Part-A and Part-B materials should be sprayed at a minimum of 2000 psi and at temperatures above 150°F. Adequate pressure and temperature should be maintained at all times.

Turbo-Liner 5502 should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

STORAGE

Turbo-Liner 5502 has a shelf life of one (1) year from date of manufacture, in factory-sealed containers.

Part-A and Part-B drums are recommended to be stored above 60°F.

Avoid freezing temperatures.

Store drums on wooden pallets to avoid direct contact with the ground.

If stored for a long period of time, rotate Part-A and Part-B drums regularly.

LIMITATIONS

Do not open until ready to use.

Both Part-A and Part-B containers must be fitted with a desiccant device during use.

WARNING

This product contains Isocyanates and Curative Material.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Turbo Liner Products representative or visit our website for current technical data and instructions.

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TURBO-LINER 7502

Two Component Aliphatic Polyurea Protective Coating

DESCRIPTION

Turbo-Liner 7502 is a fast setting, rapid curing, 100% solids, flexible, aliphatic, two component spray polyurea with excellent color retention, that can be applied to suitably prepared interior or exterior concrete and metal surfaces. Its extremely fast gel time makes it suitable for applications down to -20°F. It may be applied in single or multiple applications without appreciable sagging and is relatively insensitive to moisture and temperature allowing application in most temperatures. Turbo-Liner 7502 offers a tack free time of less than two minutes and exhibits 220% elongation upon curing with 50 Shore D hardness.

FEATURES

- ❖ Excellent Color Retention
- ❖ Excellent Thermal Stability
- ❖ Low Temperature Flexibility
- ❖ Zero VOC (100% Solids)
- ❖ Interior or Exterior Applications
- ❖ Good Chemical Resistance
- ❖ Coats Carbon or Mild Steel Metals without Primer
- ❖ Installed With or Without Reinforcement in Transitional Areas
- ❖ Odorless
- ❖ Seamless
- ❖ Meets USDA Criteria

TYPICAL USES

- ❖ Airports
- ❖ Refineries
- ❖ Fertilizer Plants
- ❖ Mining Operations
- ❖ Food Processing Plants
- ❖ Marine Environments
- ❖ Secondary Containment
- ❖ Walkways and Balconies
- ❖ Water and Waste Water Treatment
- ❖ Industrial and Manufacturing Facilities
- ❖ Power Plants
- ❖ Structural Steel
- ❖ Warehouse Floors
- ❖ Cold Storage Facilities
- ❖ Paper and Pulp Mills
- ❖ Parking Garage Decks

COLORS

Clear/Neutral. Custom colors are available upon request. Color Packs, when used, must be added to Part-B.

PACKAGING

10 gallon kit: 5 gallons Part-A (Isocyanate side) and 5 gallons Part-B (Resin side).

100 gallon kit: 50 gallons Part-A (Isocyanate side) and 50 gallons Part-B (Resin side).

COVERAGE

Turbo-Liner 7502 may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sq. ft.

SURFACE PREPARATION

In general, coating performance and adhesion are directly proportional to surface preparation. Most failures in the performance of surface coatings can be attributed to poor surface preparation. Polyurea coatings rely on the structural strength of the substrate to which they are applied. All surfaces must be free of dust, dirt, oil, grease, rust, corrosion and other contaminants. When coating substrates previously

TECHNICAL DATA

Mix Ratio by Volume	1A : 1B
Pot Life	10 - 15 secs
Tack Free Time	60 - 120 secs
Recoat Time	0 - 6 hours
Viscosity at 150-160°F (66.5-71°C), Brookfield:	
Part-A	120 ± 20 cps
Part-B	40 ± 20 cps
Density (Side A & B Combined)	8.50 lbs/gal
Flash Point	> 200°F
Hardness, ASTM D-2240	50 ± 5 D
Tensile Strength, ASTM D-412*	3300 ± 300 psi
Elongation, ASTM D-412*	220 ± 20%
Tear, ASTM D-412*	400 ± 20 pli
Service Temperature	-40°F to 300°F
VOC Content	0 gm/lit
Recommended Applied Thickness	> 2 mm
Return to Service:	
Foot Traffic	2 - 4 hours
Full Service	12 - 24 hours
Taber Abrasion Resistance, ASTM D4060 (CS17 wheel, 1000 cycles, 1 kg load)(maximum)	
	33 mg loss
Water Absorption, ASTM D471 (maximum 23°C, 24 hours)	
	< 0.5%
Crack Bridging, ASTM C836 (-25°C, 1.6mm crack, 25 cycles)	
	Pass
Pull-Off Strength (minimum), ASTM D4541:	
Inter-Coat Adhesion (within recoat time)	Excellent
Concrete (Shot blasted profile), substrate failure occurred	> 500 psi
Concrete (Primed), substrate failure occurred	> 500 psi
Steel (90 um blast profile)	> 900 psi
Lineal Shrinkage	1 - 2%
Flexibility (1/8" 3mm Mendrel Bend Test), ASTM D1737	Pass
Resistance to Weathering, ASTM G-23 (Type QUV Weatherometer-2000 hrs exposure)	
	No cracking, blistering. Gloss reduction & minor chalking are noted.

(*These physical properties from sample sprayed with Graco Foam Cat 200 @ 2000 psi minimum, with Gusmer GX7-400 mechanical purge gun @ 150-160°F. Different machine and parameter will change these properties. User should perform their own independent testing as properties are approximate.)

used, it is important to consider the possibility of substrate absorption, which may affect the adhesion of the coating system, regardless of the surface preparation. Turbo Products recognizes the potential for unique substrates from one project to another. The following information is for general reference, and for project-specific questions, contact Turbo Liner Products .

New and Old Concrete:

Refer to SSPC-SP13/NACE 6, or ICRI 03732: CSP 3-5. New concrete must be cured for 28 days prior to product application. Surface must be clean, dry, sound and offer sufficient profile for product adhesion. Remove all dust, dirt, oil, form release agents, curing compounds, salts, efflorescence, laitance and other foreign matter by shotblasting and/or suitable chemical means, in accordance with local chemical regulations. Rinse thoroughly, to achieve a pH between 8.0 and 11.0. Allow to dry completely. If old concrete has a surface that has deteriorated to an unacceptably rough surface, Turbo-Liner 260 or a mixture of Turbo-Liner 21 and sand should be used as a repair agent for cracks, spalls, bug holes and voids. Upon full cure of the repair agent, prime the entire surface intended for coating.

Concrete Surface Preparation Reference:

ASTM D4258 - Standard practice for cleaning concrete
ASTM D4259 - Standard practice for abrading concrete
ASTM D4260 - Standard practice for etching concrete
ASTM F1869 - Standard test method for measuring moisture vapor emission rate of concrete
ICRI 03732 - Concrete surface preparation

Wood:

All wood should be clean, dry and free of any knots, splinters, oil, grease or other contaminants. Splintered or rough areas should be sanded. Knots should be repaired using Turbo-Liner 260 with sand. Upon full cure of the repair agent, prime the entire surface intended for coating.

Steel (Atmospheric and Immersion Exposure):

Remove all oil, grease, weld spatters and round off any sharp edges from surface. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Optimum surface profile is 2-3 mils. Prime and shoot Turbo-Liner on to any bare metal the same day as it is cleaned to minimize any potential flash rusting.

Aluminum:

Aluminum should be blasted with aluminum oxide or sand, and not with steel or metal grit. Excessive blasting may result in a warped or deformed surface. After blasting, wash aluminum with a commercially available aluminum cleaner. Allow to dry, then prime.

Brass and Copper:

Brass and copper should be blasted with sand, and not with steel or metal grit. Remove all dust and grease prior to applying primer.

Galvanized Surfaces:

Clean and degrease any contaminated surfaces before priming. Do not blast galvanized surfaces with an abrasive grit. An adhesion test is recommended prior to starting the project.

Fiberglass Reinforced Plastic:

The gel coat should be lightly blasted or sanded with 80 grit sandpaper and cleaned.

Plastic Foams:

Enhanced adhesion is obtained when the foam is mechanically abraded. When coating polystyrene, do not use a solvent-based primer.

Textiles, Canvas, Fabrics:

Adhesion to most fabrics, geothermal membranes and textiles does not require a primer.

Stainless Steel:

Stainless steel may be grit blasted and degreased before priming. Some stainless steel alloys are so inert that it is not possible to achieve a satisfactory bond. An adhesion test is recommended prior to starting the project.

New and Old Cast Iron:

Blast with a steel grit and degrease before priming. Old cast iron is difficult to prepare for a satisfactory bond. It can absorb oil and water soluble contaminants that will keep returning to the surface after the coating system has been applied and

affect the coating system adhesion. An adhesion test is recommended prior to starting the project.

All Other Surfaces:

An adhesion test is recommended prior to starting the project.

MIXING

Turbo-Liner 7502 may not be diluted under any circumstances. Thoroughly mix Turbo-Liner 7502 Part-B (Resin side) with air driven power equipment until a homogeneous mixture and color is obtained.

APPLICATION

Both Part-A and Part-B material should be preconditioned at 80-90°F before application.

Recommended surface temperature must be at least 5°F above the dew point.

Turbo-Liner 7502 should be applied using a plural component, heated, high pressure 1:1 spray mixing equipment like Graco's Reactor, Glass Craft or other equivalent machine may be used.

Both Part-A and Part-B materials should be sprayed at a minimum of 2000 psi and at temperatures above 150°F. Adequate pressure and temperature should be maintained at all times.

Turbo-Liner 7502 should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

STORAGE

Turbo-Liner 7502 has a shelf life of one (1) year from date of manufacture in original, factory-sealed containers.

Avoid freezing temperatures.

Store drums on wooden pallets to avoid direct contact with the ground.

If stored for a long period of time, rotate Part-A and Part-B drums regularly.

LIMITATIONS

Do not open until ready to use.

WARNING

This product contains Isocyanates and Curative Material. This product is considered Dangerous Goods. DOT regulations classify it as:

Part-A: TOXIC LIQUID, organic, N.O.S. (Isophorone Diisocyanate), Class 6.1, UN 2810, PG III, TOXIC

Part-B: AMINES, liquid, corrosive, N.O.S (polyoxypropylenediamine), Class 8, UN 2735, PG III, CORROSIVE

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Turbo Liner Products representative or visit our website for current technical data and instructions.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Turbo Liner Products makes no claim that these tests or any other tests, accurately represent all environments.



TURBO LINER-STAINGARD 7000

Technical Data Sheet

TURBO LINER-STAINGARD 7000

Aliphatic Polyaspartic Polyurea

Topcoat

System Description:

Turbo Liner-Staingard 7000 is a high solids, spray-applied, aliphatic polyaspartic polyurea with excellent retention, gloss and UV stability characteristics. It can be applied at any thickness of 8-12 mils (200-300 microns) in a single pass on horizontal surfaces or multiple passes on vertical surfaces. Turbo Liner-Staingard 7000 is quick curing and specifically formulated to be installed in thin film applications.

Features:

- Quick Cure
- High Tensile Strength
- Abrasion Resistant
- Topcoat over aromatic polyurea, polyurethane and epoxy applications ranging from 35°F to 130°F, service temperature 0°F to 200°F
- UV Resistant For Superior Gloss Retention
- Meets California VOC and AQMD Requirements, including SCAQMD areas
- Color Stable
- Very Durable
- Excellent Weatherability

- Versatile Application: Can be applied by squeegee, phenolic resin core roller, plural component high pressure spray, or through a Pressure Pot.

Typical Uses:

- Concrete
- Plywood
- Cold Storage Areas
- Industrial Warehouses
- Chemical Plants
- Off-Shore Oil Platforms
- Steel
- Plastic
- Food Processing Areas
- Pulp and paper Mills
- Fertilizer Plants
- Pipeline Barges

Colors: Clear, Tan and Dolphin Grey

Packaging: 2 gallon kit (7.5 liter): 1 gallon (3.78 liters) Part-A and 1 gallon (3.78 liters) can Part-B
 - 10 gallon kit is not an in-stock item and is available with advanced notice. Contact Turbo Liner Products for availability.

Mixing:

Turbo Liner-Staingard 7000 may not be diluted under any circumstance. Proportions are premeasured. Turbo Liner-Staingard 7000 Part-A and Part-B should be mixed individually before combining. Add Part-B to Part-A while mixing, using a mechanical mixer at medium speed. Mix until a homogeneous mixture and color is obtained (at least 5 minutes) and mix frequently during application to maintain uniform color. Do not thin. Do not mix in an up and down motion.

Use care to scrape the sides of the container to ensure that no unmixed material remains.

Use caution not to whip air into the material as this may result in pinhole blisters and/or shortened pot life. Do not mix any material that cannot be used within 20-30 minutes.

Technical Data is based on draw down film

TURBO LINER-STAINGARD 7000 - CLEAR

Mix Ratio by Volume	1A : 1B
Coverage Rate	See Guide Specification
Dry Film Thickness, exclusive of aggregate	15 ± 2 mils 356 ± 50 microns
Pot Life at 75°F (24°C), 50% R.H.	30-40 minutes
Hardness, ASTM D-2240	65 ± 2 Shore D
Tear Resistance, Die C, ASTM D-624	450 ± 50 pli 78.8 ± 8.8 kN/m
Tensile Strength, ASTM D-412	3000 ± 200 psi 20.7 ± 1.4 Mpa
Ultimate Elongation, ASTM D-412	70 ± 10%
Specific Gravity, Side A Side B	1.14 1.06
Total Solids by Weight, ASTM D-2369	90 ± 2%
Total Solids by Volume, ASTM D-2697	91 ± 2%
Viscosity at 75°F (24°C), Side A Side B	300 ± 100 cps 1000 ± 300 cps
Volatile Organic Compounds, ASTM D-2369-81	0 lb/gal 0 gm/liter

Technical Data is based on draw down film

TURBO LINER-STAINGARD 7000 - PIGMENTED

Mix Ratio by Volume	1A : 1B
Coverage Rate	See Guide Specification
Dry Film Thickness, exclusive of aggregate	15 ± 2 mils 356 ± 50 microns
Pot Life at 75°F (24°C), 50% R.H.	30-40 minutes
Hardness, ASTM D-2240	65 ± 2 Shore D
Tear Resistance, Die C, ASTM D-624	400 ± 50 pli 70.1 ± 8.8 kN/m
Tensile Strength, ASTM D-412	3000 ± 200 psi 20.7 ± 1.4 Mpa
Ultimate Elongation, ASTM D-412	50 ± 10%
Specific Gravity, Side A Side B	1.14 1.28
Total Solids by Weight, ASTM D-2369	91 ± 2%
Total Solids by Volume, ASTM D-2697	91 ± 2%
Viscosity at 75°F (24°C), Side A Side B	300 ± 200 cps 1400 ± 300 cps
Volatile Organic Compounds, ASTM D-2369-81	0 lb/gal 0 gm/liter

TURBO LINER-STAINGARD 7000 TOPCOAT

Surface Preparation Standards

Surface Preparation

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Atmospheric:

SSPC-SP6/NACE 3, 2 mils
(50 microns) profile

Concrete & Masonry:

SSPC-SP13/NACE 6 or ICRI
No. 310.2 CSP 3-5. Primer required.

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std.		
		SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	C ST 2	SP 2
	Pitted & Rusted	D ST 2	D ST 2	SP 2
Power Tool Cleaning	Rusted	C ST 3	C ST 3	SP 3
	Pitted & Rusted	D St 3	D St 3	SP 3

Application:

Turbo Liner-Staingard 7000 can be applied by phenolic resin core roller, plural component high pressure spray, or through a Pressure Pot. Turbo Liner-Staingard 7000 should be applied at a minimum film thickness of 5 mils. It should be noted that the heavier the application, the longer the curing process takes.

For best results, use an airless sprayer. A phenolic resin core roller may be used, but extra care should be taken not to cause air bubbles.

Curing:

At 75°F (24°C) and 50% relative humidity, allow each coat to cure 3-4 hours. Cure time will vary depending on temperature and humidity.

Allow 6 hours before permitting light pedestrian traffic and at least 24-48 hours before permitting heavy pedestrian traffic on to the finished surface.

Uncured Turbo Liner-Staingard 7000 is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in batch sizes and thickness of application. If more than 48 hours passes between coats, re-prime the surface with Polyprime U before proceeding.

Low temperature and/or low humidity extend the cure time.

Equipment Cleanup:

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use.

Storage:

Turbo Liner-Staingard 7000 has a shelf life of one (1) year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

Limitations:

The following conditions must not be coated with Turbo Liner Products **deck coating systems or products**: on grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, magnesite, lightweight concrete. Asphalt

Surfaces must be dry, clean and free of foreign matter. Clear coating may turn opaque and cloudy due to moisture penetration, especially in exterior applications. Surface may be slippery when wet. Containers that have been opened must be used as soon as possible. Do not dilute under any circumstance.

The following conditions must not be coated with Turbo Liner Products deck coating systems or products: on grade or below grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, suspended pool decks, swimming pools, magnesite, lightweight concrete, asphalt surfaces and asphalt overlays.

Warning:

This product contains Isocyanates.

Limited Warranty:

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Turbo Liner Products representative or visit our website for current technical data and instructions.

Turbo Liner Products warrants its products to be free of manufacturing defects and that they will meet Turbo Liner Products current published physical properties. Turbo Liner Products warrants that its products, when properly installed by a state licensed waterproofing contractor according to Turbo Liner Products guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) year. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Turbo Liner Products of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Turbo Liner Products shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Turbo Liner Products shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Turbo Liner Products reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

Disclaimer:

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Turbo Liner Products makes no claim that these tests or any other tests, accurately represent all environments.

Rev. 7/30/14



TURBO LINER-STAINGARD 7072SC

Product Data Sheet

TURBO LINER-STAINGARD 7072SC

Aliphatic, Polyaspartic, Polyurea
Waterproofing Membrane Topcoat

Product Description:

Turbo Liner-Staingard 7072SC is an aliphatic polyaspartic, environmentally friendly surface topcoat for waterproofing membrane systems. Turbo Liner-Staingard 7072SC is quick curing and specifically formulated to be installed in thin film applications. It is designed for use in Southern California and is in compliance with SCAQMD air quality standards.

Features

- Quick Cure
- High Tensile Strength
- Abrasion Resistant
- Excellent Weatherability
- Seamless Waterproofing Membrane
- UV Resistant For Superior Gloss Retention
- For use in SCAQMD areas
- Topcoat over aromatic polyurea, polyurethane and epoxy applications ranging from 35°F to 130°F, service temp. from 0°F to 200°F
- Color Stable
- High Gloss
- Very Durable

Typical Uses

- Concrete
- Plywood
- Cold Storage Areas
- Industrial Warehouses
- Chemical Plants
- Off-Shore Oil Platforms
- Steel
- Plastic
- Food Processing Areas
- Pulp and Paper Mills
- Fertilizer Plants
- Pipeline Barges

Colors:

Clear, Tan and Dolphin Grey.

Custom colors are also available. Minimum order of 100 gallons (378 liters). See color chart for special provisions. Contact Turbo Liner Products for more information.

Packaging

2 gallon kit (7.57 liter): One 1 gallon (3.78 liters) can part-A and One 1 gallon (3.78 liters) can Part-B.

10 gallon kit: One 5 gallon (18.9 liter) pail of Part-A and One 5 gallon (18.9 liter) pail of Part-B.

10 gallon kit is not a stock item and is available with minimum order of 100 gallons (378 liters).

Mixing:

Turbo Liner-Staingard 7072SC may not be diluted under any circumstance. Turbo Liner-Staingard 7072SC Part-A and Part-B should be mixed individually before combining. Add Part-B to Part-A while mixing, using a mechanical mixer at medium speed.

Mix until a homogeneous mixture and color is obtained (at least 5 minutes) and mix frequently during application to maintain uniform color. Use care to scrape the sides of the container to ensure that no unmixed material remains. Use caution not to whip air into the material as this may result in pinhole blisters and/or shortened pot life.

Do not mix in an up and down motion. Do not mix any material that cannot be used within 45 minutes.

Technical Data (Based on draw down film)

Turbo Liner-Staingard 7072SC, CLEAR 100 VOC
(For Use In SCAQMD Areas)

Mix Ratio by Volume	1A : 1B
Coverage Rate	1 gal/100 sq. ft.
Dry Film Thickness per Coat (exclusive of aggregate)	14 ± 2 mils 356 ± 50 microns
Pot Life at 75°F (24°C), 50% R.H.	45-60 minutes
Hardness, ASTM D-2240	65 ± 5 Shore D
Tear Resistance, Die C, ASTM D-624	400 ± 30 pli 70.1 ± 8.8 kN/m
Tensile Strength, ASTM D-412	3500 ± 300 psi 24.1 ± 2.1 MPa
Ultimate Elongation, ASTM D-412	50 ± 10%
Specific Gravity	
Side-A	1.07
Side-B	1.02
Total Solids by Weight, ASTM D-2369	90 ± 2%
Total Solids by Volume, ASTM D-2697	88 ± 2%
Viscosity at 75°F (24°C)	
Side-A	200 ± 50 cps
Side-B	200 ± 50 cps
Volatile Organic Compounds, ASTM D-2369-81	0.83 lb/gal 100 gm/liter

Technical Data (Based on draw down film)

Turbo Liner-Staingard 7072SC, PIGMENTED - 100 VOC.

Mix Ratio by Volume	1A : 1B
Coverage Rate	1 gal/100 sq. ft.
Dry Film Thickness per Coat (exclusive of aggregate)	14 ± 2 mils 356 ± 50 microns
Pot Life at 75°F (24°C), 50% R.H.	45-60 minutes
Hardness, ASTM D-2240	65 ± 5 Shore D
Tear Resistance, Die C, ASTM D-624	400 ± 50 pli 70.1 ± 8.8 kN/m
Tensile Strength, ASTM D-412	3500 ± 300 psi 24.1 ± 2.1 MPa
Ultimate Elongation, ASTM D-412	50 ± 20%
Specific Gravity	
Side-A	1.07
Side-B	1.27
Total Solids by Weight, ASTM D-2369	91 ± 2%
Total Solids by Volume, ASTM D-2697	89 ± 2%
Viscosity at 75°F (24°C)	
Side-A	200 ± 50 cps
Side-B	1400 ± 200 cps
Volatile Organic Compounds, ASTM D-2369-81	0.83 lb/gal 100 gm/liter

TURBO LINER-STAINGARD 7072SC TOPCOAT

Application:

Turbo Liner-Staingard 7072SC can be applied by phenolic resin core roller, high pressure spray, or through a cup gun under low pressure. Turbo Liner-Staingard 7072SC should be applied at a minimum film thickness of 5 mils. It should be noted that the heavier the application, the longer the curing process takes.

Apply Turbo Liner-Staingard 7072SC evenly over the entire deck. For best results, use an airless sprayer. A phenolic resin core roller may be used, but extra care should be taken not to cause air bubbles.

Curing:

At 75°F (24°C) and 50% relative humidity, allow each coat to cure 2-4 hours.

Allow 6 hours before permitting light pedestrian traffic and at least 24-48 hours before permitting heavy pedestrian traffic on to the finished surface.

Uncured Turbo Liner-Staingard 7072SC is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in batch sizes and thickness of application.

Low temperature and/or low humidity extend the cure time.

Equipment Cleanup:

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use.

Storage:

Turbo Liner-Staingard 7072SC has a shelf life of one (1) year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

LIMITATIONS

The following conditions must not be coated with Turbo Liner Products **deck coating systems or products**: on grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, magnesite, lightweight concrete. Asphalt surfaces and asphalt overlays may be coated with Turbo Liner decking systems if first coated with the Turbo Liner PC-IM 129.

Surfaces must be dry, clean and free of foreign matter. Clear coating may turn opaque and cloudy due to moisture penetration, especially in exterior applications. Surface may be slippery when wet. Containers that have been opened must be used as soon as possible. Do not dilute under any circumstance.

The following conditions must not be coated with Turbo Liner Products deck coating systems or products: on grade or below grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, suspended pool decks, swimming pools, magnesite, lightweight concrete, asphalt surfaces and asphalt overlays.

Warning: This product contains Isocyanates and Solvent.

Limited Warranty:

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Turbo Liner Products representative or visit our website for current technical data and instructions.

Turbo Liner Products warrants its products to be free of manufacturing defects and that they will meet Turbo Liner Products current published physical properties. Turbo Liner Products warrants that its products, when properly installed by a state licensed waterproofing contractor according to Turbo Liner Products guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) year. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Turbo Liner Products of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Turbo Liner Products shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Turbo Liner Products shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Turbo Liner Products reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

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Rev. 7/30/14



**TURBO LINER
PRODUCTS INC.
1 W. CAMERON
KELLOGG, ID 83837
877-678-8726**

POLYGLAZE 100

Aliphatic Urethane

Polyurea Topcoat

(NOT TO BE USED IN SOUTHERN CALIFORNIA)

DESCRIPTION

Polyglaze 100 is a polyester, aliphatic, single component, liquid applied, moisture cured, urethane polyurea surface protection coating.

FEATURES

- ❖ Very Durable
- ❖ Excellent Weatherability
- ❖ Seamless Waterproofing Membrane
- ❖ UV Resistant For Superior Gloss Retention

TYPICAL USES

- ❖ Concrete
- ❖ Heavy Pedestrian Traffic
- ❖ Some Types of Chemical Spills
- ❖ Re-sealing Existing Urethane Surfaces
- ❖ Most Metal, Rubber, Wood, or Masonry Surfaces
- ❖ Plywood
- ❖ Vehicular Traffic

COLOR

Clear, Stone Grey, Dolphin Grey, Battleship Grey, Tan, Indian Sand, White

Custom colors are also available. Minimum order of 100 gallons (380 liters). See color chart for special provisions.

PACKAGING

- 1 gallon (3.78 liter) can
- 5 gallon (19 liter) pail
- 55 gallon drum, net fill 50 gallons (189 liters)

MIXING

Before application, mix Polyglaze 100 using a mechanical mixer (Jiffy Mixer) at slow speeds until a homogeneous mixture and color is obtained. Polyglaze 100 may also be mixed by hand for at least five minutes. Use caution not to whip too much air into the material as this may result in pinhole blisters or shortened potlife.

APPLICATION

For best results use a squeegee. Airless sprayer or phenolic resin core roller may be used but extra care should be taken not to cause air bubbles.

Apply Polyglaze 100 evenly over the entire deck. For best results use a squeegee. Airless sprayer or phenolic resin core roller may be used but extra care should be taken not to cause air bubbles.

Polyglaze 100 may require more than one coat depending on the job specifications and requirements. When estimating material requirements, coverage rates tend to increase for subsequent coats of material. To obtain proper adhesion

TECHNICAL DATA, Clear

Coverage Rate	See Guide Specifications
Dry Film Thickness, exclusive of aggregate, Per coat @ 1 gal/100 sq. ft.	10 ± 2 mils 254 ± 50 micron
Hardness, ASTM D-2240	95 ± 5 Shore A
Tear Resistance, Die C, ASTM D-624	500 ± 50 pli 87.6 ± 10 kN/m
Tensile Strength, ASTM D-412	5500 ± 500 psi 37.9 ± 3.4 MPa
Ultimate Elongation, ASTM D-412	250 ± 30%
Specific Gravity	0.988
Total Solids by Weight, ASTM D-2369	66.2%
Total Solids by Volume, ASTM D-2697	61.7%
Viscosity at 75°F (24°C)	500 ± 300 cps
Volatile Organic Compounds, ASTM D-2369-81	2.78 lb/gal 334 gm/liter

TECHNICAL DATA, Pigmented

Coverage Rate	See Guide Specification
Dry Film Thickness, exclusive of aggregate, Per coat @ 1 gal/100 sq. ft.	10 ± 2 mils 254 ± 50micron
Hardness, ASTM D-2240	95 ± 5 Shore A
Tear Resistance, Die C, ASTM D-624	500 ± 50 pli 87.6 ± 10 kN/m
Tensile Strength, ASTM D-412	3800 ± 300 psi 26.2 ± 2 MPa
Ultimate Elongation, ASTM D-412	250 ± 25%
Specific Gravity	1.14
Total Solids by Weight, ASTM D-2369	70.9%
Total Solids by Volume, ASTM D-2697	61.3%
Viscosity at 75°F (24°C)	1200 ± 500 cps
Volatile Organic Compounds, ASTM D-2369-81	2.79 lb/gal 334 gm/liter

between coats it is imperative that recoating be done within 48 hours.

When Polyglaze 100 Clear is used as a seal coat only, the surface must be clean, dry and primed with Polyprime to achieve proper adhesion to the surface. Polyprime may discolor when used under Polyglaze 100 Clear as a seal coat.

CURING

At 70°F (21°C) and 50% relative humidity, allow each coat to cure a minimum of 16 and a maximum of 48 hours between each coat.

Allow 24 hours before permitting light pedestrian traffic and at least 72 hours before permitting heavy pedestrian or auto traffic on to the finished surface. If more than 48 hours passes between coats, re-prime the surface with Polyprime 21 or 2180 before proceeding.

Uncured Polyglaze 100 is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in batch sizes and thickness of application.

Low temperature and/or low humidity extend the cure time. To accelerate cure Polyglaze Hardener may be used.

EQUIPMENT CLEANUP

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use.

STORAGE

Polyglaze 100 has a shelf life of six (6) months from date of manufacture in original, factory sealed containers.

LIMITATIONS

Surfaces must be dry, clean and free of foreign matter.

Clear coating may turn opaque and cloudy due to moisture penetration, especially in exterior applications.

Surface may be slippery when wet.

Regular primer cannot be used between coats of Polyglaze 100 Clear as it will discolor.

Containers that have been opened must be used as soon as possible.

Do not dilute under any circumstance.

WARNING

This product contains Isocyanates and Solvent.

This product does not meet VOC regulations in Southern California (SCAQMD) and should not be used in Southern California.

Polyglaze 100 Clear is considered Dangerous Goods. DOT regulations classify it as: **PAINT, Class 3, UN 1263, PG III, FLAMMABLE LIQUID.**

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Turbo Products representative or visit our website for current technical data and instructions.

LIMITED WARRANTY

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