Presented to you by



DECK COATING 101 A POLYCOAT PRESENTATION

By Adriaan F. van der Capellen

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PROLOGUE

Welcome to the world of elastomeric (flexible) deck coatings. Although not rocket science, application of these waterproof deck coating systems does require skill and expertise. Working with single component moisture cured polyurethane coatings is not for the faint of heart. The applicator must be trained in application techniques.

Additionally, the applicator must also be familiar with how weather and other jobsite conditions affect the application of these types of deck coating systems.

Beware: It is only through knowledge, training, skill and field experience that one avoids the many pitfalls that await the unwary.

POLYCOAT DECK COATING SYSTEMS



GUIDE SPECIFICATIONS | Section 2.1 POLYDECK® 100



Concrete Substrate (properly prepared substrate)



Plywood Substrate (properly prepared substrate)

Features	Typical Uses
ElastomericRecoatable	BalconiesPatios
SeamlessWaterproof	Sun DecksWalkways

Primers, base and topcoats have a shelf life of 1 year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between $60-95^{\circ}F$ (15- $35^{\circ}C$).

Pedestrian Deck Coating System	40 Dry Mils (1016 Microns)
Primer	Polyprime [®] 2180SC Polyprime [®] EBF-LV
Basecoat	PC-220
Topcoat	Polyglaze [⊚] 100 Polyglaze [⊗] AL-50
Packaging	
Polyprime® 2180SC or Polyprime® EBF-LV	<u>2-gallon kit</u> : One 1 gallon (3.78 liters) can of Side A and One 1 gallon (3.78 liters) can of Side-B or <u>10-gallon kit:</u> One 5 gallon (18.9 liters) pail of Side A
	and One 5 gallon (18.9 liters) pail of Side B
PC-220	and One 5 gallon (18.9 liters) pail of Side B 1 gallon (3.78 liters) pail or 5 gallon (18.9 liters) pails

Description

Technical Data

Polydeck[®] 100 PedestrianTraffic Deck System is a liquid applied, moisture cured, polyurethane waterproofing system for light service. The system utilizes an epoxy primer, one coat of a low odor aromatic polyurethane basecoat, one intermediate coat of a low odor aromatic polyurethane with aggregate, and one aliphatic polyurethane topcoat. It is a specialized application of elastomeric waterproof coatings designed to expand and contract with normal structural movements. Polycoat Products manufactures products in different VOC's ranging from 100 to 340 gms/liter to comply with VOC requirement in various regions. Make sure to use the correct grade of product which complies with VOC regulations/requirements applicable as per federal, state, statutory, counties, cities and local bodies at the place of installation.



Product Instructions

> For complete information associated with the application of all Polycoat Products decking systems and products, refer to the System data and Technical Data Sheets of the Polycoat Products catalog, which describes the products, surface preparation, job conditions, finishing details and other necessary information.

Coatings Application PHASE 1:

Check area of application to ensure that it conforms to the substrate requirements as stated in the General Guidelines. Prime all joints, cracks, flashings with approved primers as specified below in Phase 2. Apply PC-260 over all joints, cracks and flashing. Bridge joints, cracks, and flashings with 4" (10.2 cm) Straight Jacket Tape, pushing it into the PC-260 with a trowel. Using PC-260 as a caulking compound will shorten the curing time appreciably over conventional polyurethane caulks. Over reinforcement tape, apply a stripe coat of PC-260 and taper it onto the adjacent surface. Allow the surface to cure for 1 to 2 hours. A manufacturer approved single or two-component polyurethane sealant may also be used to bridge joints, cracks and flashings.

PHASE 2:

Substrates other than new plywood are to be primed. Primer is optional for new plywood. Metal and concrete which have been cleaned should be primed with Polyprime[®] 2180SC at a rate of 1 gallon/300 sqft (0.14 liters/sqm) or 300 sqft/gallon. Apply using a brush, flat squeege, or phenolic core roller. This will result in a 4 dry mils (102 microns) thick membrane.

Note: For rough or porous concrete or when outgassing is a concern, use Polyprime® EBF-LV at an approximate rate of 1 gallon/200 sqft (0.21 liters/sqm) or 200 sqft/gallon; this rate may vary on the porosity of the substrate. Allow primer to become tack free before moving to the Coating Application. The point at which the primer is deemed tack free is when the primer passes thumbprint test. The thumbprint test is defined by when a thumbprint is left in the primer and primer does not transfer to the thumb. If the primer has been allowed to remain tack free for more than 12 hours, it is necessary to solvent wipe surface with VOC-compliant solvent and re-prime the surface.

PHASE 3:

Apply PC-220 to the substrate at a rate of 2 gallon/100 sqft (0.82 liters/sqm). For best results, use a 1/8" (0.32 cm) notched trowel or notched squeegee. A 3/8" (0.965 cm) phenolic core roller may be used, but extra care should be taken to prevent air bubbles. Spread mixed PC-220 evenly over the entire deck resulting in a 22 ± 2 dry mils (559 \pm 51 microns) thick membrane. Allow PC-220 to cure before proceeding to Phase 4. Recoats must be done within 24 hours of cure.

Note: Polycoat basecoats should be applied the same day as the primer to avoid missing the primer recoat window. If this is not possible, broadcast heavy with aggregate into the primer to aid in the adhesion of the basecoat to the primer. Do not exceed recoat window of 12 hours after cure and if recoat window is passed then solvent wipe the surface with VOC-compliant solvent and re-prime before proceeding with the next coat/phase.

PHASE 4:

Apply a second coat of PC-220 at a rate of 3/4 gallon/100 sqft (0.31 liters/sqm) or 125 sqft/gallon. Immediately broadcast

washed, dry, rounded sand, 20 mesh (0.841 mm), 6.5+ Mohs minimum hardness, at a rate of 20 lbs/100 sqft (1 kg/sqm) or as required to achieve a slip-resistant finish, into the wet second coat, covering it completely. This coat will result in a 8 \pm 2 dry mils (203 \pm 51 microns) thick membrane, exclusive of aggregate. After allowing to cure, remove all loose aggregate. Recoats must be done within 24 hours of cure.

PHASE 5:

Apply desired color of Polyglaze® 100 or Polyglaze® AL-50 topcoat at a rate of 1 gallon/100 sqft (0.41 liters/m²) or 100 sqft/ gallon. For best results, use a 3/8" (0.965 cm) nap phenolic core roller. This coat will result in an additional 10 ± 2 dry mils (254 \pm 51 microns) thick membrane.

Optional Fast Cure BASECOAT:

The addition of PC-50 will shorten cure time to 3-5 hours for each coat at an ambient temperature of 75°F (24°C). Recoats should occur within 12 hours after cure. If the recoat window has passed, then solvent wipe the surface with VOC-compliant solvent and re-prime with Polyprime® U.

TOPCOAT:

The addition of Polyglaze® Hardener will shorten cure time to 2-4 hours for each coat at an ambient temperature of 75°F (24°C). Recoats should occur 8-12 hours of when surface becomes tack-free. If Polyglaze® Hardener is used to accelerate curing, then the recoat window for the subsequent coat is reduced to 24 hours after cure. If the recoat window has passed, then solvent wipe the surface with VOC-compliant solvent and re-prime surface.

Sloping, Concrete Repair, Crack Filling

For sloping, concrete repair or to fill cracks, use PC-260 neat or add sand/rubber granules from 0.5 to 1.5 by volume into mixed PC-260.

Finished System

When applied as directed, the Polydeck® 100 PedestrianTraffic Deck System will provide 40 ± 5 dry mils (1016 ± 125 dry microns), exclusive of aggregate, of superior waterproofing protection. The system requires a continuous coating application to minimize lines and/or streaking. Any optional adhesion test is to be performed seven days after product application.

Limitations

The following conditions must not be coated with Polycoat Products deck coating systems or products: on grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, magnesite, or concrete with a structural integrity less than 3000 psi. Asphalt surfaces and asphalt overlays may be coated with Polycoat Decking Systems if first coated with the Polycoat[™] PC-IM 129.

Concrete must exhibit 3000 psi minimum strength. Concrete surfaces to be coated must be trowel finished in compliance with the American Concrete Institute (except that hand troweling

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Section 2.1



is not required), followed by a fine-haired brooming, left free of loose particles, and shall be without ridges, projections, voids and concrete droppings that would be mechanically detrimental to coating application or function.

New concrete must be cured for 28 days, (see General Guidelines). Polycoat Products coating systems should not be subjected to rising water tables or hydrostatic pressure on slab-on-grade decks. The only acceptable grade of plywood is APA rated exterior grade or better. The appearance and physical characteristics of the plywood and grade should be considered. Plywood should be new, or cleaned and sanded (see General Guidelines). The coating should be applied at least 5°F (3°C) above the dew point.

Coverage rates recommended are based on lab conditions, applied at 75°F (24°C) ambient temperature and are intended to be minimum coverage rates on clean, smooth plywood, and are exclusive of additional amounts needed to fill potholes, spalling, scaling, rough and irregular surfaces. Porosity and roughness of the substrate, aggregate size, and product temperature will affect coverage rates. Material mil thickness rates are calculated on theoretical coverage for a smooth substrate and do not account for the actual texture or substrate conditions in the field or at the time of application. Sample mockups on the projects are recommended to determine the exact coverage rates necessary to waterproof the deck to acceptable standards.

Equipment should be cleaned with a urethane grade environmentally safe solvent, as permitted under local regulations, immediately after use. Uncured materials are sensitive to heat and moisture. The substrate must be structurally sound and sloped for proper drainage. Polycoat Products assumes no liability for substrate defects. Field visits by Polycoat Products personnel are for the purpose of making technical recommendations only and are not to supervise or provide quality control on the job site.

Warning

The products in this system contain Isocyanates, Solvents and Curatives.

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GUIDE SPECIFICATIONS | Section 2.3 POLYDECK® 150/150SC



Plywood/Concrete Substrate (properly prepared substrate)



Plywood/Concrete Substrate (properly prepared substrate)

Features	Typical Uses
 Elastomeric 	 Balconies
 Recoatable 	 Patios
 Seamless 	 Sun Decks
 Waterproof 	 Walkways

Primers, base and topcoats have a shelf life of 1 year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

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Pedestrian Deck Coating System	52 Dry Mils (1321 microns)
Primer	Polyprime® 2180SC Polyprime® EBF-LV
Basecoat	PC-220/220SC
Topcoat	Polyglaze® 100/100C/100SC Polyglaze® AR/AR-OF Polyglaze® AL-50/AL-50SC
Packaging	
Polyprime [®] 2180SC or Polyprime [®] EBF-LV	2-gallon kit: One 1 gallon (3.78 liters) can of Side-A and One 1 gallon (3.78 liters) can of Side-B or <u>10-gallon kit:</u> One 5 gallon (18.9 liters) pail of Side-A and One 5 gallon (18.9 liters) pail of Side-B
PC-220/220SC	1 gallon (3.78 liters) can or 5 gallon (18.9 liters) pail
Polyglaze◎ AR/AR-OF or 100/100SC or AL-50/AL-50SC	1 gallon (3.78 liters) cans or 5 gallon (18.9 liters) pail

Description

Technical Data

The Polydeck[®] 150/150SC Pedestrian Traffic Deck System is a liquid applied, moisture cured, polyurethane waterproofing system for everyday use. The system utilizes an epoxy primer, one coat of an aromatic polyurethane basecoat, one intermediate coat of an aromatic polyurethane with aggregate, and one aliphatic polyurethane topcoat. The system is a specialized application of elastomeric waterproof coatings designed to expand and contract with normal structural movements. The system can be applied to protect surfaces against spalling, freeze/thaw damage, and chemicals commonly encountered on these surfaces. It is resistant to weathering. Installed and maintained properly, the Polydeck[®] 150/150SC PedestrianTraffic Deck System will ensure years of service. Make sure to use the correct grade of product which complies with VOC regulations/requirements applicable as



oper federal, state, statutory, counties, cities and local bodies
 at the place of installation.

Product Instructions

For complete information associated with the application of all Polycoat Products decking systems and products, refer to the General Guidelines and Technical Data Sheets of the Polycoat Products catalog, which describes the products, surface preparation, job conditions, finishing details and other necessary information.

Coatings Application

PHASE 1:

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Check area of application to ensure that it conforms to the substrate requirements, as stated in the General Guidelines. Prime all joints, cracks, flashings with approved primers as specified below in Phase 2. Apply PC-260 over all joints, cracks, and flashing. Bridge joints, cracks, and flashings with 4" (10.2 cm) Straight Jacket Tape, pushing it into the PC-260 with a trowel. Using PC-260 as a caulking compound will shorten the curing time appreciably over conventional polyurethane caulks. Over reinforcement tape, apply a stripe coat of PC-260 and taper it onto the adjacent surface. Allow the surface to cure for 1 to 2 hours. A manufacturer approved single or two-component polyurethane sealant may also be used to bridge joints, cracks and flashings.

PHASE 2

Substrates other than new plywood are to be primed. Primer is optional on new plywood. Metal and concrete which have been cleaned should be primed with Polyprime® 2180SC at a rate of 1 gallon/300 sqft (0.14 liters/sqm) or 300 sqft/gallon. Apply using a brush or phenolic core roller. This will result in a 4 dry mils (102 microns) thick membrane.

Note: For rough or porous concrete or when outgassing is a concern, use Polyprime[®] EBF-LV at an approximate rate of 1 gallon/200 sqft (0.21 liters/sqm) or 200 sqft/gallon; this rate may vary on the porosity of the substrate. Allow primer to become tack free before moving to the Coating Application. The point at which the primer is deemed as tack free is when the primer passes thumbprint test. The thumbprint test is defined by when a thumbprint is left in the primer and primer does not transfer to the thumb. If the primer has been allowed to remain tack free for more than 12 hours, it is necessary to solvent wipe surface with VOC-compliant solvent and re-prime the surface.

PHASE 3:

Apply PC-220/220SC to the substrate at a rate of 2 gallon/100 sqft (0.82 liters/sqm) or 50 sqft/gallon. For best results, use a 1/8" (0.32 cm) notched trowel or notched squeegee. A 3/8" (0.965 cm) nap phenolic core roller may be used, but extra care should be taken to prevent air bubbles. Spread mixed PC-220/220SC evenly over the entire deck resulting in a $22 \pm 2 dry$ mils (559 \pm 51 microns) thick membrane. Allow PC-220/220SC to cure before proceeding to Phase 4. Recoats must be done within 24 hours of cure.

Note: Polycoat basecoats should be applied the same day as the primer to avoid missing the primer recoat window. If this is not possible, broadcast heavy with aggregate into the primer to aid in the adhesion of the basecoat to the primer. Do not exceed recoat

window of 12 hours after cure and if recoat window is passed, then solvent wipe the surface with VOC-compliant solvent and re-prime before proceeding with the next coat/phase.

PHASE 4:

Apply Polyglaze[®] AR/AR-OF at a rate of 1 1/4 gallon/100 sqft (0.51 liters/sqm) or 80 sqft/gallon. Immediately broadcast washed, dry, rounded sand, 20 mesh (0.841 mm), 6.5+ Mohs minimum hardness, at a rate of 20 lbs/100 sqft (1kg/sqm) or as required to achieve a slip-resistant finish, into the wet second coat, covering it completely. This coat will result in an additional 15 ± 2 dry mils (381 ± 51 microns) thick membrane, exclusive of aggregate. After allowing to cure, remove all loose aggregate, preferably by vacuum.

PHASE 5:

Apply desired color of Polyglaze[®] 100/100C/100SC or Polyglaze[®] AL-50/AL-50SC topcoat at a rate of 1 1/4 gallon/100 sqft (0.51 liters/sqm) or 80 sqft/gallon. For best results, use a 3/8" (0.965 cm) nap phenolic core roller. This coat will result in an additional 15 ± 2 dry mils (381 ± 51 microns) thick membrane.

OPTIONAL FAST CURE:

Basecoat: The addition of PC-50 will shorten cure time to 3-5 hours for each coat an ambient temperature of 75°F (24°C). Recoats should occur within 12 hours after cure. If re-coat window has passed, then solvent wipe the surface with VOC-compliant solvent and re-prime with Polyprime U.

Topcoat: The addition of Polyglaze® Hardener will shorten cure time to 2-4 hours for each coat. Recoats should occur 8-12 hours of when the surface becomes tack-free. If Polyglaze® Hardener is used to accelerate curing, then re-coat window for the subsequent coat is reduced to 24 hours after cure. If the recoat window has passed, then solvent wipe the surface with VOC-compliant solvent and re-prime surface.

SLOPING, CONCRETE REPAIR, CRACK FILLING:

For sloping, concrete repair or to fill cracks, use PC-260 neat or add sand/rubber granules from 0.5 to 1.5 by volume into mixed PC-260.

FINISHED SYSTEM:

When applied as directed, the Polydeck® 150/150 SC Pedestrian Traffic Deck System will provide 52 ± 5 dry mils (1321 ± 125 dry microns), exclusive of aggregate, of superior waterproofing protection.

The system requires a continuous coating application to minimize lines and/or streaking. Any optional adhesion test is to be performed seven days after product application.

Limitations

The following conditions must not be coated with Polycoat Products deck coating systems or products: on grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, magnesite, or concrete with a structural integrity less than 3000 psi. Asphalt surfaces and asphalt overlays may be coated with Polycoat decking systems if first coated with the PolycoatTM PC-IM 129.

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Concrete must exhibit 3000 psi minimum strength. Concrete surfaces to be coated must be trowel finished in compliance with the American Concrete Institute (except that hand troweling is not required), followed by a fine-haired brooming, left free of loose particles, and shall be without ridges, projections, voids and concrete droppings that would be mechanically detrimental to coating application or function.

New concrete must be cured for 28 days (see General Guidelines). Polycoat Products coating systems should not be subjected to rising water tables or hydrostatic pressure on slab-on-grade decks. The only acceptable grade of plywood is APA rated exterior grade or better. The appearance and physical characteristics of the plywood and grade should be considered. Plywood should be new or cleaned and sanded (see General Guidelines). Coating should be applied at least 5°F (3°C) above the dew point.

Coverage rates recommended are based on lab conditions, applied at 75°F (24°C) ambient temperature and are intended to be minimum coverage rates on clean, smooth plywood, and are exclusive of additional amounts needed to fill potholes, spalling, scaling, rough and irregular surfaces. Porosity and roughness of the substrate, aggregate size, and product temperature will affect coverage rates. Material mil thickness rates are calculated on theoretical coverage for a smooth substrate and do not account for the actual texture or substrate conditions in the field or at the time of application. Sample mockups on the projects are recommended to determine the exact coverage rates necessary to waterproof the deck to acceptable standards.

Equipment should be cleaned with a urethane grade environmentally safe solvent, as permitted under local regulations, immediately after use. Uncured materials are sensitive to heat and moisture. The substrate must be structurally sound and sloped for proper drainage. Polycoat Products assumes no liability for substrate defects. Field visits by Polycoat Products personnel are for the purpose of making technical recommendations only and are not to supervise or provide quality control on the job site.

Warning

The products in this system contain Isocyanates, Solvents and Curatives.





GUIDE SPECIFICATIONS | Section 2.7 POLYDECK® 180/180SC



Plywood/Concrete Substrate (properly prepared substrate)



Plywood/Cement Substrate (properly prepared substrate)

Features	Typical Uses
 Elastomeric 	 Balconies
 Recoatable 	 Patios
 Seamless 	 Sun Decks
 Waterproof 	 Walkways
	 RoofTops

Primers, base and topcoats have a shelf life of 1 year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between $60-95^{\circ}F$ (15-35°C).

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Pedestrian Traffic Deck Coating System	68 Dry Mils (1727 Dry Microns)
Primer	Polyprime® 2180SC Polyprime® EBF-LV
Basecoat	PC-220/220SC
Topcoat	Polyglaze® 100/100C/100SC Polyglaze® AR/AR-OF Polyglaze® AL-50/AL-50SC
Packaging	
Polyprime 2180SC or Polyprime EBF-LV	2 gallon kit: One 1 gallon (3.78 liters) can of Side-A and One 1 gallon (3.78 liters) can of Side-B or <u>10 gallon kit:</u> One 5 gallon (18.9 liters) pail of Side-A and One 5 gallon (18.9 liters) pail of Side-B
PC-220/220SC	1 gallon (3.78 liters) can or 5 gallon (18.9 liters) pail
Polyglaze◎ AR/AR-OF or 100/100SC or AL-50/AL-50SC	1 gallon (3.78 liters) cans or 5 gallon (18.9 liters) pail

Description

The Polydeck® 180/180SC Pedestrian Traffic Deck System is a liquid applied, moisture cured, polyurethane waterproofing decking system for everyday use. The system utilizes an epoxy primer, two coats of an aromatic polyurethane basecoat, one intermediate coat of an aromatic polyurethane topcoat with aggregate, and one aliphatic polyurethane topcoat. The decking system is a specialized application of elastomeric waterproof coatings designed to expand and contract with normal structural movements. It can be applied to protect surfaces against spalling, freeze/thaw damage, and chemicals commonly encountered on these surfaces and are resistant to weathering. Installed and maintained properly, the Polydeck® 180/180SC Pedestrian Traffic Deck System will ensure years of service. Make sure to use the correct grade of product which complies with VOC regulations/requirements applicable as per federal, state, statutory, counties, cities and local regulatory



bodies at the place of installation.

Product Instructions

For complete information associated with the application of all Polycoat Products decking systems and products, refer to the General Guidelines and Technical Data Sheets of the Polycoat Products catalog, which describes the products, surface preparation, job conditions, finishing details and other necessary information.

Coatings Application PHASE 1:

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> Check area of application to ensure that it conforms to the substrate requirements, as stated in the General Guidelines. Prime all joints, cracks, flashings with approved primers as specified below in Phase 2. Apply PC-260 over all joints, cracks, and flashing. Bridge joints, cracks, and flashings with 4" (10.2 cm) Straight Jacket Tape, pushing it into the PC-260 with a trowel. Using PC-260 as a caulking compound will shorten the curing time appreciably over conventional polyurethane caulks. Over reinforcement tape, apply a stripe coat of PC-260 and taper it onto the adjacent surface. Allow the surface to cure for 1 to 2 hours. A manufacturer approved single or twocomponent polyurethane sealant may also be used to bridge joints, cracks, and flashings.

PHASE 2:

Substrates other than new plywood are to be primed. Primer is optional for new plywood. Metal and concrete which have been cleaned should be primed with Polyprime® 2180SC at a rate of 1 gallon/300 sgft (0.14 liters/sgm) or 300 sgft/gallon. Apply using a brush or phenolic core roller. This will result in a 4 dry mils (102 microns) thick membrane.

Note: For rough or porous concrete or when outgassing is a concern, use Polyprime® EBF-LV at an approximate rate of 1 gallon/200 sqft (0.21 liters/sqm) or 200 sqft/gallon; this rate may vary on the porosity of the substrate. Allow primer to become tack free before moving to the Coating Application. The point at which the primer is deemed as tack free is when the primer passes thumbprint test. The thumbprint test is defined by when a thumbprint is left in the primer and primer does not transfer to the thumb. If the primer has been allowed to remain tack free for more than 12 hours, it is necessary to solvent wipe surface with VOC-compliant solvent and re-prime the surface.

PHASE 3:

Apply two aromatic basecoats of PC-220/220SC to the substrate at a rate of 2 gallons/100 sqft (0.82 liters/sqm) or 200 sqft/ gallon for each coat, resulting in a total of $44 \pm 2 dry$ mils (1118 ± 51 microns) thick membrane. During the application of each coat, spread the mixed PC-220/220SC evenly over the entire deck resulting in a 22 \pm 2 dry mils (559 \pm 51 microns) thick membrane. Allow the first coat of PC-220/220SC to cure before applying the second coat. For best results, use a 1/8" (0.32 cm) notched trowel or notched squeegee. A 3/8" (0.965 cm) nap phenolic core roller may be used, but extra care should be taken to prevent air bubbles. Allow PC-220/220SC second coat to cure before proceeding to Phase 4. Recoats must be done within 24 hours of cure.

Note: Polycoat basecoats should be applied the same day as the primer to avoid missing the primer recoat window. If this is not possible, broadcast heavy with aggregate into the primer to aid in the adhesion of the basecoat to the primer. Do not exceed recoat window of 12 hours after cure and if recoat window is passed, then solvent wipe the surface with VOC-compliant solvent and re-prime before proceeding with the next coat/phase.

PHASE 4:

Apply Polyglaze® AR/AR-OF at a rate of 1 gallon/100 sqft (0.41 liters/sqm) or 100 sqft/gallon. Immediately broadcast washed, dry, rounded sand, 20 mesh (0.841 mm), 6.5+ Mohs minimum hardness, at a rate of 20 lbs/100 sqft (1 kg/sqm) or as required to achieve a slip-resistant finish, into the wet second coat, covering it completely. This coat will result in an additional 12 ± 2 dry mils (305 ± 51 microns) thick membrane, exclusive of aggregate. After allowing to cure, remove all loose aggregate.

PHASE 5:

Apply desired color of Polyglaze® 100/100C/100SC or Polyglaze® AL-50/50SC topcoat at a rate of 1 gallon/100 sqft (0.41 liters/ sqm). For best results, use a 3/8 inch (0.965 cm) nap phenolic core roller. This coat will result in an additional 12 ± 2 dry mils $(305 \pm 51 \text{ microns})$ thick membrane.

OPTIONAL FAST CURE:

Basecoat: The addition of PC-50 will shorten cure time to 3-5 hours for each coat. Recoats should occur within 12 hours after cure. If re-coat window has passed, then solvent wipe the surface with VOC-compliant solvent and re-prime with Polyprime U.

Topcoat: The addition of Polyglaze® Hardener will shorten cure time to 2 - 4 hours for each coat. Recoats should occur within 8-12 hours of when the surface becomes tack-free. If Polyglaze® Hardener is used to accelerate curing then re-coat window for the subsequent coat is reduced to 24 hours after cure. If the recoat window has passed, then solvent wipe the surface with VOC-compliant solvent and re-prime surface.

SLOPING, CONCRETE REPAIR, CRACK FILLING:

For sloping, concrete repair or to fill cracks, use PC-260 neat or add sand/rubber granules from 0.5 to 1.5 by volume into mixed PC-260.

FINISHED SYSTEM:

When applied as directed, the Polydeck® 180/180SC Pedestrian Traffic Deck System will provide 68 ± 5 dry mils (1727 ± 125 dry microns), exclusive of aggregate, of superior waterproofing protection. The system requires a continuous coating application to minimize lines and/or streaking.

Limitations

The following conditions must not be coated with Polycoat Products deck coating systems or products: on grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, magnesite, or concrete with a structural integrity less than 3000 psi. Asphalt surfaces and asphalt overlays may be coated with Polycoat





decking systems if first coated with the Polycoat[™] PC-IM 129.

Concrete must exhibit 3000 psi minimum strength. Concrete surfaces to be coated must be trowel finished in compliance with the American Concrete Institute (except that hand troweling is not required), followed by a fine-haired brooming, left free of loose particles, and shall be without ridges, projections, voids and concrete droppings that would be mechanically detrimental to coating application or function.

New concrete must be cured for 28 days (see General Guidelines). Polycoat Products coating systems should not be subjected to rising water tables or hydrostatic pressure on slab-on-grade decks. The only acceptable grade of plywood is APA rated exterior grade or better. The appearance and physical characteristics of the plywood and grade should be considered. Plywood should be new or cleaned and sanded (see General Guidelines). Coatings should be applied at least 5°F (3°C) above the dew point.

Coverage rates recommended are based on lab conditions, applied at 75°F (24°C) ambient temperature and are intended to be minimum coverage rates on clean, smooth plywood, and are exclusive of additional amounts needed to fill potholes, spalling, scaling, rough and irregular surfaces. Porosity and roughness of the substrate, aggregate size, and product temperature will affect coverage rates. Material mil thickness rates are calculated on theoretical coverage for a smooth substrate and do not account for the actual texture or substrate conditions in the field or at the time of application. Sample mockups on the projects are recommended to determine the exact coverage rates necessary to waterproof the deck to acceptable standards

Equipment should be cleaned with a urethane grade environmentally safe solvent, as permitted under local regulations, immediately after use. Uncured materials are sensitive to heat and moisture. The substrate must be structurally sound and sloped for proper drainage. Polycoat Products assumes no liability for substrate defects. Field visits by Polycoat Products personnel are for the purpose of making technical recommendations only and are not to supervise or provide quality control on the job site.

Warning

The products in this system contain Isocyanates, Solvents, and Curatives.

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SUBSTRATES

1.Plywood

2.Concrete

3.Existing Coatings

FLASHINGS

- 1. Minimum 3 inch by 3 inch 26 gauge to 24 gauge bonderized or galvanized flashings
- 2. Copper and stainless flashings are acceptable but require abrading prior to primer and base coat application
- 3. All metal flashing must be primed with Polyprime 2180
- 4. Overlap 2" to 4"
- 5. Fasten by nailing with galvanized roofing or ring shank nails at 3" to 4" intervals on center making sure that the flashing lays flat on the substrate with no fish mouthing or buckling

TOOLS

- 1. Variable speed drill and Jiffy mixing paddle
- 2. $1/8^{th}$ inch notched trowel or 30 mil squeegee for base coat application and $\frac{1}{2}$ to
 - 5/8th inch nap roller for back rolling
- 3. 1/16th inch notched trowel or 10 mil squeegee for intermediate or aggregate coat application and 3/8th inch nap roller for back rolling
- 4.3/8th inch nap roller or flat squeegee for top coat appliocation
- 5. Spiked shoes or crampons
- 6. Knee pads
- 7.2 to 3 inch throw away paint brushes
- 8. Roller frames
- 9. Xylene or acetone for clean-up and diluting product if necessary. Don't forget rags

NOTE: It is advisable to use phenolic core roller skins to avoid shedding.

Mil Gauge: Used to measure the wet film thickness of a coating as it is being applied.









SEALANTS

1. Any compatible single or two component polyurethane sealant such as:

(a) Sikaflex 1a

(b) Sikaflex-15 LM

(c) Sikaflex-2c

(d) Sonolastic NP 1

(e) Sonolastic NP 2

(f) Bostik 915 FS

NOTE: I prefer Sikaflex because it is generally self-priming on most surfaces.

SLOPING

- 1. Decks should be sloped a minimum of 1/4 inch per lineal foot.
- 2. Use only Polycoat flexible polyurethanes for sloping plywood decks. The following product is acceptable for sloping:

(a) PC-260

- 3. High compressive strength repair mortars are acceptable for sloping concrete substrates. Following are acceptable repair mortars:
 - (a)Rapid Set(b)Sikaquick 2500(c)Sikaquick VOH(d)MasterEmaco T 415 by BASF

PRIMERS

- 1. Plywood in good condition does not need to be primed.
- 2. Concrete must always be primed.
- 3. Metal flashings must always be primed.

Note: Different substrates require different primers. Varying site conditions also require specific primers to meet the conditions.

Consult Polycoat for recommendations regarding the appropriate primer to use.

PLYWOOD DECKS

- 1. Make sure the deck is properly sloped (1/4 inch per lineal foot).
- 2. Make sure the deck is solidly blocked and properly fastened.
- 3. Make sure the metal flashings are properly fastened.
- 4. Make sure the deck is clean.
- 5. Caulk all knot holes.
- 6. Caulk all plywood seams and metal flashings.
- 7. Reinforce all plywood seams and metal flashings with manufacturer approved reinforcing fabric.
- 8. Apply the desired Polycoat deck coating system.

































CONCRETE DECKS

- I. Make sure the concrete was properly cured by water curing methods or a manufacturer approved curing compound.
- 2. Make sure the concrete has cured a minimum of 28 days.
- 3. Make sure the concrete has a minimum 3000 psi compressive strength.
- 4. Make sure the concrete has a suitable profile (light broom finish or ICRI CSP 3-4 profile).
- 5. Clean the concrete.
- 6. Perform all necessary crack and spall repairs per manufacturer's recommended procedures.
- 7. Make sure the concrete is dry (no more than 8% moisture content).
- 8. Apply desired Polycoat deck coating system.







EXISTING COATINGS

- Existing polyurethane deck coatings may be recoated with Polycoat polyurethane deck coating products. After thorough cleaning, the existing polyurethane coating must be primed with Polyprime U prior to application of the new coating.
- Other types of deck coating systems such as acrylic and neoprene latex based systems may also be recoated with Polycoat deck coating products.
- 3. It is always wise to perform adhesion (pull)

tests on existing coatings.

4. Consult Polycoat for inspection, evaluation and re-coating protocol.

ACCELERATORS

1. Coatings may require the addition of accelerator to speed up the cure times under the following conditions:

(a)Cold weather (temperatures below 60°F)(b) Re-Construction projects where access is an issue

- 2. Under these circumstances it is advisable to accelerate Polycoat base coats with PC-50 and Polycoat intermediate and topcoats with Polyglaze Hardener.
- 3. The cure time of the base coats will be reduced to 6-8 hours. The cure time of the intermediate and topcoats will be reduced to 4-6 hours. These results are based on an ambient temperature of 75°F and 50% relative humidity.

TIPS

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- 1. Broadcast aggregate into the wet intermediate coat from a 5-gallon pail as though feeding chickens.
- 2. Always leave a wet edge during the broadcasting process so you don't roll back into coating that has been broadcast with sand; the sand will clump up if you roll back into it and create such a mess

and unsightly appearance that you'll be back the next day re- coating (and losing money).

- 3. Never apply base coats thicker than 30 to 40 mils or they may blister.
- 4. Never apply intermediate and topcoats thicker than 10 to 15 mils or they may blister.
- 5. It is desirable to apply consecutive coats in consecutive days for the best adhesion. You'll have to apply re-coat primer otherwise.
- 6. In cold weather when the product has a tendency to stiffen it is acceptable to dilute the product with a commercial grade solvent such as xylene or acetone. The ratio is 5% solvent (1 quart) per 5-gallon pail of coating.
- 7. It is best to store the products indoors in a warm and dry environment.

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