



UNIPOXY LINING is a solvent-free, self-leveling epoxy floor coating that provides excellent resistance to heavy abrasion, impact, and chemicals.

It cures to a hard, tough, and smooth finish, making it ideal for demanding industrial flooring applications.

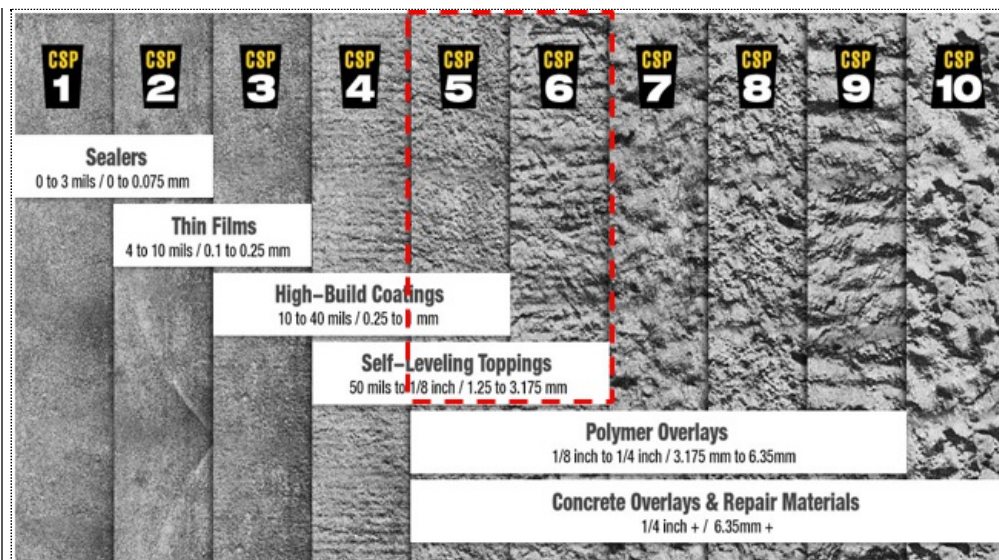
Recommended use	UNIPOXY LINING is designed as a heavy-duty top coat for concrete floors exposed to severe mechanical wear, impact, and chemical exposure. It is ideally suited for areas such as laboratories, nuclear power plants, hospitals, electronics manufacturing, chemical facilities, and pharmaceutical plants. It is particularly recommended for loading zones requiring exceptional durability and chemical resistance. Limitations & Precautions 1. Not recommended for use on floors of frozen storage warehouses, as poor adhesion and cracking may occur due to extremely low surface temperatures. 2. Discoloration and chalking may occur due to the nature of epoxy/amine curing systems. 1) Outdoor application is prohibited. 2) In indoor areas exposed to UV light (e.g., under strong lamps or sunlight), discoloration or surface degradation may also occur. 3) In such cases, it is recommended to apply an epoxy or polyurethane top coat over the lining, depending on job site conditions.
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Physical Properties

Finish and Color	Gloss. Green. Other colors are available on request.
Specific gravity	Mixed : Approx. 1.43 ~ 1.53 (Kg/L).
Solids by volume	Approx. 96%
Spreading rate (Theoretical)	1.04ℓ/㎡ in 1mm dry film thickness on a smooth surface. 2.08ℓ/㎡ in 3mm dry film thickness on a smooth surface. 3.12ℓ/㎡ in 3mm dry film thickness on a smooth surface.
Flash point	PTA(Base) : Over 60℃ (Closed cup).

Application details

Surface preparation	1. Concrete must be cured for at least 30 days at 20℃ (68°F) and below 85% R.H. 2. Remove any oil and grease from the surface to be coated. The surface must be ground or abrasive blasted to remove laitance and other impurities (using blasting, chipping, diamond wheel grinding, or 10% HCl cleaning). * Concrete Profile: CSP 5-6
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3. The optimum pH value is 7–9. The moisture content of the concrete surface must be below 6%.
4. Fill gaps or grooves with UNIPOXY PUTTY. Portions with severe cracks must be repaired using epoxy resin mortar. For new construction joints, after coating, the joints should be cut and sealed with PU9330(N).
5. If the wall is close to the floor, perform V-cutting along the edge of the region.
6. Prior to overcoating, remove oil, salt, chalking material, and other contaminants from the aged coating film completely using proper cleaning methods, such as solvent cleaning and/or fresh water washing.

Preceding coat	UNIPOXY PRIMER or according to specification. UNIPOXY LINING must be coated with two times (1st : scrapping 1mm coating, 2 nd: main 2mm coating) to prevent bubble occurrence due to concrete void and coating defect due to polluted material
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Method of application	Items	Product Name	Film Thickness	Method of Application	Color
	Primer	UNIPOXY Primer	50μ	B.R.S	Clear
	Top coat [Optional]	UNIPOXY LINING with silica sand UNIPOXY LINING	500 μ 2,500μ	RAKE Trowel	Gloss All Color
	Top coat	UNIPOXY LINING UNIPOXY LINING	500 μ 2,500μ	RAKE Trowel	Gloss All Color

Roller or Brush application.

* Remarks *

Primer coating should be enough to penetrate the ground. If Excessive coatings may cause poor adhesion. And Severe penetration of the primer coating is added to be no dilution. If the ground state to the good without poor side, no additional coating.

(1) Primer

– Mix thoroughly prior to application in the proportions with power agitator after surface preparation finishes, and then coat one time 50 microns DFT to be absorbed into the substrate by Roller or Brush.
– Coat after diluting with UNIPOXY THINNER to the maximum 5%(by volume) of the paint amount to be absorbed into the substrate

– As coat one time, if the absorption of the coated substrate is occurred severely (the part that is restored to the color of the initial substrate), it must coat primer additively.

(2) Top Coat

– After curing primer for minimum 24 hours at 20℃, mix UNIPOXY LINNING base (PTA) and curing agent

(PTB) thoroughly by PTA/PTB = 20 KG/4 KG and scrape this mixed paint, 0.5 mm of thickness with rake or trowel.

* Mixing ratio using general sand

–color : Mixed with general sand Base(PTA) : Curing Agent(PTB) : general sand (by weight)

– 20 kg : 4 kg : 240kg(For parking lot or walk-way)

– After curing UNIPOXY LINNING of 0.5mm thickness for minimum 16 hours at 20°C, mix base (PTA) and curing agent (PTB) thoroughly by PTA/PTB = 20 KG / 4 KG and coat this mixed paint, 2.5 mm of thickness with rake or trowel.

– This time, we can remove the surface bubble with spraying UNIPOXY THINNER.

* Remarks –application of UNIPOXY LINNING at winter condition*

– When working at winter, close the outside wind or you will have coating defect.

– The minimum work temperature must be above 5°C (substrate temperature).

– If you work below 5°C of substrate, you will have leveling defectiveness, alligating, amine blushing and wrinkle.

– UNIPOXY LINNING is low viscosity type paint at winter ,therefore you don't have to use thinner.

– If you use thinner at winter, you will have alligating, amine blushing and wrinkle.

– Before using UNIPOXY LINNING, you keep UNIPOXY LINNING for minimum 24 hours in the condition where keep warm the above 5°C (If you keep UNIPOXY LINNING below 5°C, the viscosity of UNIPOXY LINNING is high and you will work difficultly.)

Mixing	Mixing Instructions Mix Base (Part A) and Curing Agent (Part B) in a ratio of 5 : 1 by weight. Thoroughly mix the components using a power agitator for 2–3 minutes until a uniform mixture is achieved. Mix only in the proportions supplied.				
Thinning	Not required under normal conditions. *Precautions 1. If the paint viscosity is too high or leveling is poor at low temperatures, dilute with UNIPOXY THINNER up to a maximum of 3% by volume. 2. If more than 3% thinner is added, film defects such as amine blushing, wrinkling, or alligating may occur.				
Application conditions	The surface must be completely cleaned and dry. Do not apply when the relative humidity exceeds 85%. The surface temperature must be at least 3°C (5°F) above the dew point to prevent condensation. In confined areas, provide adequate ventilation with clean air during application to facilitate solvent evaporation. The recommended temperature range for application and curing is 10°C to 28°C (50°F to 82°F) with relative humidity below 85%. The ideal paint temperature is 20°C (68°F). *Remarks UNIPOXY LINING may exhibit amine blushing at temperatures below 10°C (50°F). In such cases, avoid exposure to water, ice, snow, rain, or dew before applying the topcoat. If amine blushing occurs and the surface is contaminated with water, the cured coating may develop whitening or discoloration.				
Film thickness	Recommended per coat 1~3 mm dry. May be specified in another film thickness than indicated depending on purpose and area of use.				
Drying time		5 °C	10 °C	20 °C	30 °C
	Set to touch	10 hours	6 hours	3 hours	2 hours
	Dry through	48 hours	35 hours	17 hours	12 hours
	Fully cured	9 days	6 days	4 days	3 days
	※ 5, 10 °C : Winter Season 20, 30 °C : Summer Season * The actual drying time is subject to the film thickness, ventilation, humidity etc., and drying time under other temperature conditions should be checked and informed by KCC.				
Subsequent Coat	Summer Season : Not Recommended Winter Season : UNIPOXY COATING				
Pot life		5 °C	10 °C	20 °C	30 °C
	Pot Life	40 minutes	30 minutes	20 minutes	15 minutes

Recoating Interval (Min)	48 hours	35 hours	17 hours	12 hours
Recoating Interval (Max)	9 days	6 days	4 days	3 days

* Remarks *

If UNIPOXY LINING is used at above of 30°C, curing speed will comes to be quick and pot life is short. So UNIPOXY LINING should be kept at condition of cool interior instead of hot outside at summer season.

Storage and package

Shelf life	6 months (Store in cool, dry, well-ventilated place.)
Packing Unit	24 Kg (PTA : 20 Kg, PTB : 4 Kg)

Remarks

Handling Precautions	1. During application and curing, ensure the ambient temperature is above 10°C (50°F). To prevent condensation, the surface temperature must be at least 3°C (5°F) above the dew point. 2. To minimize bubbles or defects caused by surface contamination when applying UNIPOXY LINING over concrete, apply in two steps: a scraping coat followed by a main coat. 3. Highly porous concrete surfaces (e.g., those ground with a planer) may produce excessive bubbles. Remove the bubbles and apply an additional scraping coat. 4. At temperatures below 10°C (50°F), defects such as bubbles, color separation, alligating, amine blushing, and wrinkling may occur due to over-dilution or poor application conditions. 5. If excessive bubbles appear or persist during painting, use an oil-based thinner spray, insecticide sprayer, or a spiked roller to remove them. 6. For total film thickness of 1000 µm, surface cracks or gaps can be filled and painted without a scraping coat. 7. If the surface is highly porous, severe bubbling may occur. Inspect the area and consult the Technical Sales Team or Architectural Coatings R&D Team before application. 8. When applying at 1000 µm, leveling may be lower compared to 2000–3000 µm applications. Use a trowel or rake to improve leveling. 9. In winter, do not clean the coated surface with water after applying UNIPOXY LINING. 10. In cold conditions, amine blushing can easily occur, and the affected areas may be contaminated with oil, rust, or muddy water, which cannot be removed easily. If water contamination occurs, whitening (efflorescence) may appear. Clean with solvent and apply UNIPOXY CLEAR as a topcoat. 11. On uneven or sloped surfaces, paint flow may cause color separation. Pre-treat the surface with cement or resin mortar, and apply 2–3 scraping coats to prevent continuous flow. 12. For color separation due to surface gradient, flatten the surface before applying UNIPOXY LINING. 13. In winter, use the product at 5°C (41°F) or higher. At lower temperatures, viscosity increases and workability decreases. 14. If the coating is below the recommended thickness or contaminated with dust before curing, cratering may occur. This is especially likely after panel processing, due to scattered materials. 15. Always apply the product within its pot life. 16. If a 2-component solvent-free epoxy is not used immediately after mixing, an exothermic reaction will cause a rapid increase in temperature. This shortens the pot life and may pose a burn hazard. Do not store mixed epoxy outdoors; store in a cool area and use immediately. 17. UNIPOXY LINING may discolor or chalk due to the nature of epoxy and amine curing systems. 1) Outdoor application is prohibited. 2) Indoors, under high-intensity UV lamps, similar discoloration may occur. 3) Apply an epoxy or polyurethane topcoat depending on site conditions to prevent surface degradation. 18. When repainting over existing coatings, conduct a test application in advance. Proceed only if there are no issues with adhesion or compatibility. 19. Exposure to water, alcohol, or high humidity may result in gloss loss or discoloration. In cold and humid environments, amine blushing, uneven curing, and delayed hardening may occur.
Note	1. Avoid direct contact with the skin and eyes. Do not inhale solvent vapors for extended periods. 2. Ensure adequate ventilation during application. 3. Use appropriate respiratory protection when applying in confined or poorly ventilated areas. 4. The optimal application and curing temperature is above 10°C (50°F). Surface temperature must be at least 3°C (5°F) above the dew point to prevent condensation. 5. Apply the product within its specified pot life. 6. This product may cause headaches, dizziness, loss of coordination, or other health problems. Do not inhale vapors, spray mist, or fumes. Do not ingest the material. 7. During application, wear protective masks, goggles, gloves, and other appropriate PPE (personal

- protective equipment) to prevent inhalation and contact.
8. In case of contact with skin or eyes, or accidental ingestion, follow the first-aid instructions on the product label and seek immediate medical attention.
 9. Do not apply the product in confined or restricted areas unless forced ventilation is provided and all workers wear appropriate respiratory protection.
 10. Do not use this product as fuel under any circumstances.
 11. For product information or details on health and safety hazards, refer to the Technical Data Sheet (TDS) and Material Safety Data Sheet (MSDS) available on our website (www.kccworld.co.kr), or contact our Customer Service Center.

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Disclaimer : The information in this data sheet is believed to the best of our knowledge based on laboratory test and practical experience. However, there are many factors affecting the performance of product and the product quality itself, so we are not able to guarantee without the confirmation of the purpose of using the product from us in writing. We reserve the right to change the data without notice and you should check that this data sheet is current prior to using the product.

