



UNIPOXY LINING PLUS is a two component solvent-free, self levelling epoxy floor coating.

As a low yellowing product with reduced UV degradation, it has a smooth surface and excellent chemical, abrasion and impact resistance.

Recommended use	<p>It is applied to concrete such as laboratories and factories that are in severe abrasion environment or require high impact resistance and chemical resistance.</p> <p>* Precaution</p> <p>1. Don't apply to cold and frozen warehouse because rapid changes in temperature may cause poor adhesion and cracks.</p>
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Physical Properties	
Finish and Color	<p>1) Gloss</p> <p>2) Color : Gray other colors are available on request.</p>
Specific gravity	Mixed : Approx. 1.27 ~ 1.32 (Kg/L)
Solids by volume	Approx. 96%
Spreading rate (Theoretical)	<p>① 1.04ℓ/㎡ in 1mm dry film thickness on a smooth surface.</p> <p>② 2.08ℓ/㎡ in 2mm dry film thickness on a smooth surface.</p> <p>③ 3.12ℓ/㎡ in 3mm dry film thickness on a smooth surface.</p>
Flash point	Over 60°C (Closed cup)

Application details	
Surface preparation	<p>Remove any oil and grease from surface to be coated with clean rag soaked in Thinner No. 003 or Toluene.</p> <p>Do not apply coating unless concrete has cured at least 28 days at 20°C/68°F and below 80% R.H or equivalent.</p> <p>The surface moisture must be below 6%. The surface should be free of laitance. This can be accomplished by finishing technique, abrasive blasting, grinding or acid-etching.</p>
Preceding coat	<p>UNIPOXY PRIMER or according to specification.</p> <p>UNIPOXY LINING PLUS 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</p>
Method of application	<p>Summer Season : Rake, Trowel.</p> <p>Winter Season : Trowel (For preventing surface bubble).</p> <p>* Precaution</p> <p>1. Don't use rubber rake because many bubbles form.</p>
Mixing	<p>PTA(Base) : PTB(Curing Agent) = 15.1 : 5.3 (by weight).</p> <p>Mix separately, then combine together and mix thoroughly with high speed dissolver for 2-3 minutes prior to application in the proportions as delivered.</p>

Thinning	<p>Not required</p> <p>* Precaution</p> <p>1. If the viscosity of paint is high or the leveling is bad at low temperature, dilute to less than 3% of UNIPOXY THINNER.</p> <p>2. If applicators use over 3% of UNIPOXY THINNER, a film defect can occur like amine blushing, wrinkle, alligatoring etc.</p>
Application conditions	<p>Temperature during application and curing is suitable for</p> <p>10°C–28°C/50°F–82°F, and below 85% R.H. and paint temperature is suitable for 20°C/68°F</p> <p>* Remarks *</p> <p>UNIPOXY LINING PLUS can be occurred amine blushing at condition of below 10°C, at this time, do not pollute water, ice, snow, rain and dew, apply the top coating. If coating occurred amine blushing is polluted with water, coating color is changed with whiteness</p>

Film thickness Recommended per coat 1~3 mm dry.

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

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

Storage and package

Shelf life	6 months
Storage	Store in cool, dry, well-ventilated place.
Packing Unit	20.4 Kg (PTA : 15.1 Kg, PTB : 5.3 Kg)

Remarks

Handling Precautions	<p>a. When painting or hardening, the ambient temperature is more than 10°C. To avoid condensation of moisture, the surface temperature must be at least 3°C above the dew point.</p> <p>b. To prevent the occurrence of bubble when applying unipoxy lining plus through work inside concrete, or to prevent defects caused by contaminants, divide the work into scraping and main painting twice.</p> <p>c. The concrete surface that has been ground into a planer is highly porous, so be careful that there are too many bubble. At this time, remove the bubble and apply an additional coat of scraping once.</p> <p>d. Under conditions below 10 °C air and ground temperature, bubbles will not disappear or will cause color separation, alligatoring, amine blushing, and Winkle due to over-dilution and poor workplace conditions.</p> <p>e. During the paintwork, if occur a lot of bubbles or bubbles do not disappear, apply thinner spray or insecticide spray of oil-based type or use a spike roller to remove bubble.</p> <p>f. If the total thickness is 1000 μm, You can paint after filling the surface crack or gap, without scraping.</p> <p>g. If the surface is porous, the bubble is severe, so check the status of the porous area, and contact the technical sales</p>
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- department or the architectural coating R&D team before painting.
- h. When painting at 1000 μm thickness, the leveling is relatively lower than when painting at 2000 to 3000 μm thickness. Use trowel or rake to improve levelling.
 - i. In winter, do not clean the water after painting the unipoxy lining plus.
 - j. During winter, Amine Blushing are easily generated, and the surface of the paint film where they are generated is contaminated with oil, rust and muddy water etc, and cannot be cleaned. Also, if it is contaminated with water, the paint film will turn white (efflorescence). If Amine Blushing, surface contaminating, efflorescence occur, clean them with solvent and paint a unipoxy coating.
 - k. On the surface of the ground, the flow of paint can cause color separation. Therefore, the surface should be flattened by pre-treatment (cement mortar/resin mortar, etc.) and at least 2 to 3 lining scraping paint to avoid continuous flow of paint.
 - l. For color separation caused by surface gradient, paint unipoxy coating after flattening the surface.
 - m. In winter, use the paint at a temperature of 5°C or higher. If the paint is low temperature (5°C or below), the viscosity of the paint increases and becomes less workable.
 - n. If the paint thickness below the recommended paint thickness or if the dust is contaminated under the non-hardening conditions of the paint, the cratering may occur. In particular, if painted after panel processing, there is a very high probability of cratering occurrence due to the material scattering from the panel, so be careful.
 - o. Each paint should be constructed abide by the pot-life
 - p. If the 2-component non-solvent epoxy product is not used immediately after mixing, the paint temperature increase rapidly due to exothermic reaction. So the pot-life is shortened and risk of burn during operation due to high temperature. 2-component non-solvent epoxy products should not be stored externally. Store in a cool room and work immediately after mixing.
 - q. Unipoxy lining plus is exposed outdoors, or at sites where ultraviolet radiation is high, it may cause discoloration and chalking due to the nature of epoxy paint.
 - r. When painting the repair above the old film, apply a test painting in advance and paint if there is no abnormality (adhesion, etc.).
 - s. Exposure to water (humidification), alcohol, etc. may cause polishing degradation or discoloration. In cold and humid conditions, amine blushing, departmental phenomena, and delayed curing may occur, so be careful.

Note

- a. Optimum temperatures in application and curing is above 10°C. Surface temperatures must be at least 3°C (5°F) above dew point to prevent condensation.
- b. It must be coated with two times (1st : scraping 1mm coating, 2 nd: main 2mm coating) to prevent bubble occurrence due to concrete void
- c. If it is coated under recommendation thickness or is polluted with dust, while applying, it can be occurred cratering
- d. It must be coated within pot life
- e. The paint compounds would occur a headache, dizziness, loss of coordination and health problems, so do not breathe vapors, spray mist and fumes and do not eat the compounds.
- f. During application, to avoid breathing vapors or spray mist, wear the protective mask, protective glasses, gloves and suitable protective equipment
- g. Please avoid contact with eyes and skin during application, in case of contact with skin and eyes or eating paint, get the first aids by the paint can label on the side and then get the medical assistance by physician immediately
- h. Do not apply the paint in restricted areas. If you are obliged to apply in restricted areas, use the ventilation machine to blow out, all workers should wear a protective mask
- i. Besides application, do not allow to use the paint as fuel.
- j. If you have some questions about products or you want to know harmfulness information, you can get the technical datasheets and MSDS on our Internet Homepage (www.kccworld.co.kr) Or ask the customer's service.

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.

