



UNIPOXY CHEMICAL RESISTANCE is a solvent-free, self levelling type epoxy floor coating with outstanding resistance to heavy abrasion and impact.

It cures to a hard, tough, smooth finish and has outstanding resistance to chemicals, abrasion, impact.

Recommended use	Used place where high impact and chemical resistance in loading areas is required. Excellent for laboratory floors, nuclear power plant, hospital, electronic, chemical plant, pharmaceutical, etc.
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Physical Properties

Finish and Color	Gloss. Green. Other colors are available on request.
Specific gravity	Mixed : Approx. 1.05 ~ 1.15 (Kg/L).
Solids by volume	Approx. 98%
Spreading rate (Theoretical)	2.04ℓ / m ² in 3mm dry film thickness on a smooth surface. 3.06ℓ / m ² in 3mm dry film thickness on a smooth surface
Flash point	PTA(Base) : Over 25°C / 77°F (Closed cup).

CHEMICAL RESISTANCE	<table border="1"> <thead> <tr> <th>Chemical resistance</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>Sulfuric acid 70%</td> <td>Good</td> </tr> <tr> <td>Nitric acid 30%</td> <td>Good</td> </tr> <tr> <td>Hydrichloric acid 20%</td> <td>Good</td> </tr> <tr> <td>Phosphoric acid 70%</td> <td>Good</td> </tr> <tr> <td>Sodium Hydroxide Saturated solution</td> <td>Good</td> </tr> <tr> <td>Calcium Hydroxide Saturated solution</td> <td>Good</td> </tr> </tbody> </table>		Chemical resistance	Result	Sulfuric acid 70%	Good	Nitric acid 30%	Good	Hydrichloric acid 20%	Good	Phosphoric acid 70%	Good	Sodium Hydroxide Saturated solution	Good	Calcium Hydroxide Saturated solution	Good
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※ TEST METHOD : ASTM D 1308:2002, During 7 days																
※ Cuation																
– Data on chemical resistance are the results of a fully cured coating																
– Please consult with our technical staff before using the chemicals other than the above-mentioned conditions to check the quality of chemical resistance.																

Application details

Surface preparation	Remove any oil and grease from surface to be coated with clean rags soaked in Thinner No. 003 or Toluene. Do not apply coating unless concrete has cured at least 28 days at 20°C / 68°F and below 80% R.H or equivalent. 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
Preceding coat	UNIPOXY PRIMER or according to specification. UNIPOXY CHEMICAL RESISTANCE must be coated with two times (1st : scrapping 0.5mm – 0.8mm coating, 2nd : main 1.5 – 2.5 mm coating) to prevent bubble occurrence due to concrete void and coating defect due to polluted material
Method of	Summer Season : Rake, Trowel.

application	Winter Season : Trowel (For preventing surface bubble)			
Mixing	PTA(Base) : PTB(Curing Agent) = 11 : 5 (by volume). Mix separately, then combine together and mix thoroughly with high speed dissolver for 2-3 minutes prior to application in the proportions as delivered.			
Thinning	Not required.			
Application conditions	Temperature during application and curing is suitable for 10°C-28°C/50°F-82°F, and below 85% R.H. and paint temperature is suitable for 20°C/68°F * Remarks * UNIPOXY CHEMICAL RESISTANT can be occurred amine blushing and bubbles at condition of below 10°C, at this time, do not pollute water, ice, snow, rain and dew.			
Film thickness	Recommended per coat 2~3 mm dry.			
Drying time		10°C	20°C	30°C
	Set to touch	7 hours	4 hours	3 hours
	Dry through	35 hours	16 hours	12 hours
	Fully cured	9 Days	7 Days	5 Days
Subsequent Coat	Not Recommended			
Pot life		10°C	20°C	30°C
	Pot Life	20 minutes	10 minutes	5 minutes
	R/I (Min.)	35 hours	16 hours	13 hours
	R/I (Max.)	9 days	7 days	5 days
	* Remarks * If UNIPOXY CHEMICAL RESISTANT is used at above of 30°C, curing speed will comes to be quick and pot life is short. So UNIPOXY CHEMICAL RESISTANT is kept at condition of cool interior instead of hot outside at summer season			

Storage and package	
Shelf life	12 months
Storage	Store in cool, dry, well-ventilated place.
Packing Unit	16ℓ (PTA : 11ℓ , PTB : 5ℓ)

Remarks	
Handling Precautions	<p>(1) 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</p> <p>(2) Mix thoroughly together for 2~3minutes with high speed hand mixer (RPM 1,000 ~1,500) before application according to mixing ratio indicated</p> <p>(3) Do not use the thinner at Middle coat UNIPOXY CHEMICAL RESISTANCE. If the coating is thinned with the thinner, the coating is occurred the physical properties decrease and curing defectiveness.</p> <p>(4) Do not apply UNIPOXY CHEMICAL RESISTANCE below 10°C of substrate temperature</p> <p>(5) Middle/Top coat UNIPOXY CHEMICAL RESISTANCE can be occurred amine blushing at condition of below 10°C, at this time, do not pollute water, ice, snow, rain and dew. If coating occurred amine blushing is polluted with water, coating color is changed with whiteness</p> <p>(6) If Middle/Top coat UNIPOXY CHEMICAL RESISTANCE is used at above of 30°C, curing speed will comes to be quick and pot life is short. So UNIPOXY CHEMICAL RESISTANCE is kept at condition of cool interior instead of hot outside at summer season</p> <p>(7) UNIPOXY CHEMICAL RESISTANCE must be coated with two times (1st : scrapping 0.5mm~0.8mm</p>

coating, 2 nd: main 1.5mm~2.5mm coating) to prevent bubble occurrence due to concrete void.

(8) In confined spaces, circulate fresh air during application to assist solvent evaporation and

Respiratory protection is recommended

(9) If it is coated under recommendation thickness or is polluted with dust, while applying, it can be occurred cratering

(10) The pot life being over, left-over after using cannot be used and must be discarded

- UNIPOXY PRIMER : 8hours, UNIPOXY CHEMICAL RESISTANCE : 10minutes at 20°C

Note	<p>(1)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.</p> <p>(2) During application, to avoid breathing vapors or spray mist, wear the protective mask, protective glasses, gloves and suitable protective equipment</p> <p>(3) 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</p> <p>(4) 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</p> <p>(5) Besides application, do not allow to use the paint as fuel.</p> <p>(6) 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.</p>
1'st issue	2011-03-01
Revision	

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.



EPOXY F.C PRIMER EP118

Product Description A polyamide cured epoxy resin based quick drying primer/sealer with excellent resistance to chemicals and water. It provides excellent adhesion to most substrates including concrete, wood, steel, etc. It assures excellent sealing and tight adhesion between the concrete and subsequent coat.
It meets the requirements of ASTM C309 TYPE-I Moisture Retention of Concrete.

Recommended Use As a primer/sealer for use on concrete, wood floors or other substrate in areas where high anti-dust property is required such as nuclear power plant, electronic, precision equipment and chemical plant, etc.
As a form-release agent and curing compound for the protection of concrete surfaces during the construction.

Physical Properties

Finish and Color Gloss. Clear

Drying Time

Substrate temperature	5 °C/41 °F	20 °C/68 °F	30 °C/86 °F
Set to touch	4 h	2 h	1 h
Dry through	36 h	12 h	10 h
Fully cured	5 d	3 d	2 d

* 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.

Solids by Volume Approx. 28 % (Determined by ISO 3233)

Theoretical Spreading Rate 5.6 m²/L in 50 μm dry film thickness on a smooth surface.

Specific Gravity Approx. 0.90 for Mixture of Base and Curing agent.

Flash Point Base (EP118 PTA) : 1 °C/34 °F (Closed cup)
Curing Agent (EP118 PTB) : 28 °C/82 °F (Closed cup)

Application Details

Surface Preparation Remove any oil grease, dirt and any other contaminants from the surface before painting by proper method such as solvent cleaning and fresh water washing, etc.

	<ul style="list-style-type: none"> * Steel : Blast cleaning to Sa 2.5 or power tool cleaning to St3, etc. * Concrete : Must be cured at least 28 days at 20 °C/68 °F and below 80 % R.H., and surface must be grinding or abrasive blasted to remove laitance and other impurities. Moisture content of the concrete surface must be below 6 %.
Application Conditions	<p>The surface should be completely cleaned and dried.</p> <p>Do not apply when relative humidity is above 85 %. The surface temperatures should be at least 2.7 °C (5 °F) above dew point to prevent condensation.</p> <p>In confined areas, ventilate with clean air during application to assist solvent evaporation.</p>
Mixing	<p>Base (Part A) : Curing Agent (Part B) = 1 : 1 (by volume)</p> <p>Mix thoroughly together prior to application in the proportions with power agitator as delivered.</p>
Pot Life	8 hours at 20 °C/68 °F
Thinning	<p>Thinner No. 0642</p> <p>Do not dilute components separately, only the mixture.</p>
Application Method	<p>Spray(air or airless), Roller or Brush application.</p> <p>For airless spray application ;</p> <p>Nozzle orifice : 381 μm ~ 432 μm (0.015" ~ 0.017")</p> <p>Output pressure : 13.8 MPa</p> <p>(Airless spray data are indicative and subject to adjustment)</p>
Typical Film Thickness	<p>50 μm dry.</p> <p>May be specified in another film thickness than indicated depending on purpose and area of use.</p>
Recoating Interval	<p>At 20 °C/68 °F, Minimum : 12 h</p> <p>Maximum : Free</p> <p>Prior to overcoating, remove the oil, salt, chalking material and any other contaminants on aged coating film completely by proper cleaning method such as solvent cleaning and/or fresh water washing.</p>
Subsequent Coat	Korepox Filler EC264(H), Korepox F.C EU254, Korepox F.C EU225(H), Korepox Color Mortar ER2233, or according to specification.
Shelf Life	<p>12 months</p> <p>Store in cool, dry, well-ventilated place.</p>
Standard Packing Unit	16 L (PTA : PTB = 8 L : 8 L).
Remarks	Protect skin and eyes from direct contact with liquid paint, and avoid

prolonged breathing of solvent vapors.

Use with adequate ventilation.

Respiratory protection is recommended when applying this product in confined spaces or stagnant air.

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