UNIPOXY CHEMICAL RESISTANCE DATA-SHEET

UNIPOXY CHEMICAL RESISTANCEis 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.

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 /㎡ in 3mm dry film thickness on a smooth surface. 3.06ℓ /㎡ in 3mm dry film thickness on a smooth surface
Flash point	PTA(Base) : Over 25℃/77°F(Closed cup).

CHEMICAL RESISTANCE

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

※ 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 rage soaked in Thinner No. 003 or Toluene. Do not apply coating unless concrete has cured at least 28 days at 20℃/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 RESISTANTCE must be coated with two times (1st : scrapping 0.5mm – 0.8mm coating, 2 nd: 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℃-28℃/50°F-82°F, and below 85% R.H. and paint temperature is suitable for 20℃/68°F * Remarks * UNIPOXY CHEMICAL RESISTANT can be occurred amine blushing and bubbles at condition of below 10℃, at this time, do not pollute water, ice, snow, rain and dew.
Film thickness	Recommended per coat 2~3 mm dry.

Drying time

	10℃	20℃	30℃
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℃	20℃	30℃
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℃, 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

(1) Optimum temperatures in application and curing is above 10℃. Surface temperatures must be at least 3℃(5°F) above dew point to prevent condensation

(2) Mix thoroughly together for 2~3minutes with high speed hand mixer (RPM 1,000 ~1,500) before application according to mixing ratio indicated

(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.

(4) Do not apply UNIPOXY CHEMICAL RESISTANCE below 10℃ of substrate temperature

(5) Middle/Top coat UNIPOXY CHEMICAL RESISTANCE can be occurred amine blushing at condition of below 10℃, 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

(6) If Middle/Top coat UNIPOXY CHEMICAL RESISTANCE is used at above of 30℃, 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

(7) UNIPOXY CHEMICAL RESISTANCE must be coated with two times (1st : scrapping 0.5mm~0.8mm

	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 applicating, 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℃
Note	(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. (2) During application, to avoid breathing vapors or spray mist, wear the protective mask, protective glasses, gloves and suitable protective equipment (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 (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 (5) Besides application, do not allow to use the paint as fuel. (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.
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