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KLEN 1308FC
Solvent Based Epoxy Floor Coating

Product Description

KLEN 1308FC is a solvent-based epoxy floor coating system for concrete or cementitious floors.

Benefits

- Attractive coloured floor
- Increased abrasion resistance
- Hygienic, easy to clean.
- Protects and dustproof.
- Wide range of Colours to choose (see colour catalogue)

Standard Thickness
Applied thickness at 0.15 – 0.2 mm per coat.

Areas of Use

- Industrial floors
- Warehouses
- Electronic industries
- Garages and car park decks
- Pedestrians' walkways

Physical Properties

• Times between coats	: 6 to 24 hours
• Cure time for:	
Foot Traffic	: 8 hours @ 25° C
Vehicular Traffic	: 24 hours@ 25° C
Chemical	: 7 days @ 25° C
• Abrasion resistance CS-17 (ASTM D4060)	: 97mg weight loss after 1000 cycles of abrasion
Adhesion strength (ASTM D4541:02)	: 3.80 N/mm^2
Slip resistance (SS485:01)	: 82BPN (Wet) 0.88 (Dry)

KLENCO (SINGAPORE) PTE LTD
18 Gul Crescent, Singapore 629527 ● Tel: +65 6862 3388 ● Fax: +65 6861 7575 ● info@klenco-asia.com ● www.klenco-asia.com
Company Registration No: 197100402R

Concrete Floor Protection

KLEN 1308FC epoxy flooring coating is a 2-part system. Mixing the colour portion to the hardener is required before usage. Mix well and let stand for 10 minutes before usage.

Packaging available:
Colour – 13.5 kg per pail
Hardener – 4.5 kg per can
Mixing Colour + Hardener will give a total quantity of 18 kg.
Coverage:
Approximate: 8 to 10 square meter per 1 kg of product.

- **Self-leveling Floor**
  for commercial and industrial plants and warehouses.
- **Damp-Proof Epoxy Flooring**
  for basement carparks.
- **Electro-static Discharge Floor**
  for electrical and electronic industries.
- **Chemical, Abrasion and UV Resistant Floor**
  for chemical plant, hard wearing and exterior UV environment.
- **High Thermal-Cycle and Excellent Impact Resistant Floor**
  for food industry water jet cleaning (-40° to 120°C), high impact and abrasion resistance.
- **Dust Proofing Sealer**
  Penetrating and sealing of concrete floor.

Chemical Resistance

KLEN 1308FC is resistant to a wide range of chemicals commonly used in industrial areas.
Resistance to spillages

Citric acid 5% / Hydrochloric acid 10% / Sodium Hydroxide 30% / Tartaric acid 5%
Sulphuric acid 30% / Petrol / Acetic acid 5% / Lactic Acid 5% / Sugar solution
Nitric acid 25% / Phosphoric acid 30% / Formaldhyde solution 38%

Preliminary Floor Inspections

In general, the area to be surfaced must be clean, sound, dry and above 13 °C to assure a successful installation. Concrete must be at least 28 days old. Newly laid concrete flooring may still contain moisture that will affect the adhesion.

If there is uncertainty as to whether or not a curing compound is present on the floor, the following two tests may be performed in order to find out:

1. Pour a cup of water on three or four areas of the floor. If the water puddles out, then there probably is no curing compound on the floor, and the preparation process may begin. However, if the water beads up like on a waxed car, this may indicate the presence of a curing compound which must be removed by chemical or mechanical means.

2. Place a drop of KLENCO'S ***KLEN 898*** on the floor. If the flooring bubbles, a curing compound is not present.

Always be alert to any possible airborne or surface contaminants which may contribute to problems such as fisheyes, crawling, cratering, etc.

The concrete floor should be examined for the presence of moisture. This can be accomplished by the following:
Polyethylene Sheet - In performing the polyethylene sheet test, a 4' X 4' section of the floor should be cleaned, rinsed and allowed to dry.
The sheet is then taped to the slab surface with tape, making sure all edges are taped completely and sealed. If no moisture accumulates on the underside of the sheet after a 24-hour period, the concrete may be considered dry enough for coating. Otherwise allow for further drying.

Surface Preparation:

All oil, grease, wax, laitance, curing compounds, water soluble concrete hardeners and other surface contaminants must first be removed.

- New concrete floors should be cured for a minimum of 28 days and dried to below a moisture content of 4%.
- For adequate adhesion of coatings, concrete surface should be free of laitance.

Chemical Preparation:

KLEN 1101 should be used to remove all traces of grease, oil, and dirt followed by a thorough rinsing to remove all cleaning residues. Remove excess water by squeegee or with a good wet/dry vacuum.

To remove laitance and to give a slight texture to area to be surfaced, acid-etch using ***KLEN 898.*** Using a 1:1 dilution ratio with water, apply evenly as possible to the surface and vigorously scrub into the surface with a stiff bristle brush or automatic scrubber. Thoroughly rinse with copious quantities of water, to remove any residues. Repeat this process, if necessary, until concrete surface is the texture of a medium grit sandpaper.

Otherwise, by sand blasting or high-pressure blasting.

Applications Instructions

This product should be applied from a roller tray and not by pouring directly onto the concrete surface. A high quality, 3/8" nap roller or lamb wool applicator should be used.
Apply as evenly as possible. To lessen bubbling of the coating, avoid excessive agitation of the liquids with the roller or applicator. A minimum of 2 coats is recommended.
Priming

- If a primer is required, apply 1 coat of **KLEN 1306** and allow to cure for 6 to 8 hours before applying FC 460 as topcoat. Drying time is approximate and depends on humidity.
- Efficient sealing of the concrete surface is essential to minimize surface defects in the finishing coat.

Mixing 1308FC

- The ratio of mixing is 3 parts Colourant to 1 part Hardener (by weight).
- The best mixing is obtained by using an electric mixer until a homogenous mixture is obtained.
- Allow the mixture to stand for 15 minutes before applying.
- Dilution with thinner is not recommended as it will affect the film thickness.

0.2 mm - Roll on Coat

1st Coat:

- Apply 1308FC using fine smooth lambs wool roller on cured primed surface. (if priming is required)
- Allow to cure prior to applying subsequent coat.

2nd Coat:

- Apply 1308FC using fine smooth lambs wool roller on cured 1st coat within 6 to 48 hours.
- In cold weather, a longer period of cure before applying of 2nd coat may be required.

Cleaning

Use ***KLEN 1310*** for cleaning purposes.

Shelf Life

Minimum 12 months in the original unopened container. Store in a cool and dry area.

Colour Charts

Standard Floor Colours

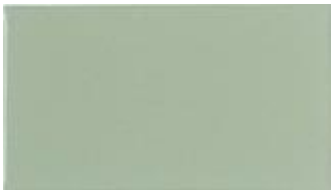
Colours presented are as for references, actual colours are referred to colour card.

9883 Lilac Swish

BS00A01 Rhino


9002 Venus


BS00A05 Silver Grey


968 Maxtor Green


146 Crystal Blue


BS18C35 Horizon


9898 Pearl Grey


9060 Mirage


9026 Tropicana


9048 Jade


BS14D43 Mid Green


00A08 Aiwa Grey


BS9097 Steel Grey


BS20C37 Powder Blue

9178 Signal Green

9915 Pearl White

08C35 Buff

9124 Yellow

9456 Golden Yellow

9063 Flamingo

9649 Marine Blue

9437 Signal Red

9051 Oxide Red

SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product Identifier: KLEN 1308FC

Other means of identification: Epoxy Floor Coating

Date of SDS: 01 January 2026

Recommended use and restriction on use: This product is a epoxy coating to be used together with ***KLEN 1308FC Hardener***.

Supplier: Klenco (Singapore) Pte Ltd.
Address: 18 Gul Crescent, Singapore 629527
Department: Chemical
Person in Charge: Chemist

Phone:(65) 6862 3388
Fax: (65) 6861 7575
Email: info@klenco-asia.com
Emergency contact: (65) 6862 3388 Ext 249

SECTION 2 - HAZARDS IDENTIFICATION

GHS classification: Flammable liquid: Category 3; Specific target organ toxicity (repeated exposure): Category 2; Skin irritation: Category 2; Eye irritation: Category 2A Skin Sensitization: Category 1; Aquatic hazard (long-term): Category 2

GHS label elements: Pictogram: Signal word: Warning

Hazard statements:
H226: Flammable liquid and vapor
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H373: May cause damage to organs through prolonged or repeated exposure. (Hearing organs)
H411: Toxic to aquatic life with long lasting effects.

Precaution statements:
P210: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P260: Do not breathe vapor or spray.
P264: Wash hands thoroughly after handling
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection

SECTION 3 - COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Identification	Component & Composition	*Chemical Formula*	*CAS NO.*	*EC NO.*
Epoxy Resin	< 60.0 %		-	Polymer
Glycol Ether	< 20.0 %	$C_4H_{10}O_2$	110-80-5	203-804-1
Xylene	< 15.0 %	C_8H_{10}	1330-20-7	215-535-7
N Butanol	< 15.0 %	$C_4H_{10}O$	71-36-3	200-751-6

SECTION 4 – FIRST AID MEASURES

Inhalation: Move to area of fresh air. If breathing has stopped, artificial respiration should be started. Oxygen may be administered if available. Call a physician. Never give anything by mouth to an unconscious person.

Skin contact: Wash with large amounts of soap and water. If irritation persists, consult a physician.

Eye contact: Flush with cool water for at least 15 minutes. Then consult a physician immediately.

Ingestion: Do not induce vomiting. Wash mouth with plenty of water. Call a physician immediately.

Notes to Physicians: Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable fire-extinguishing media:
Carbon dioxide, foam, dry powder fire extinguishers. In case of larger fires, water spray should be used.

Specific hazards arising from the chemical:
Flashbacks along vapor trail may occur. This material may be ignited by heat, sparks, flames, or static electricity. Close containers may explode when exposed to extreme heat.

Special protective actions for fire fighters:
Fire fighters who may be exposed to the products of combustion should wear self-contained breathing apparatus with full protective equipment. Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame. Avoid spreading burning liquid with water used for cooling purposes.

SECTION 6 - ACCIDENTIAL RELEASE MEASURE

Personal precautions, protective equipment, and emergency measures:
Use proper protective equipment (chemical protection suit, gloves, goggles, mask, etc.). Ensure adequate ventilation/exhaust extraction. Keep unauthorized personnel away.

Environmental precautions: Chemical substances should not be released into the environment (water, soil).

Methods and materials for containment and cleaning up:
Ventilation is required. Use self-contained breathing apparatus if necessary. Eliminate all sources of ignition. Avoid breathing vapor, ventilate area. Remove with inert absorbent and non- sparking tools.

SECTION 7 - HANDLING AND STORAGE

Precaution for safe handling: Wash thoroughly after handling, especially before eating and drinking, Wash contaminated goggles, face-shield, and gloves. Launder contaminated clothing before re-using.

Conditions for safe storage, including any incompatibilities: Keep container dry and tightly closed in a cool and well-ventilated place. Avoid exposure to temperatures above 50°C. Ensure adequate ventilation or exhaust ventilation in the working area. Exhaust ventilation is necessary if product is sprayed. Avoid contact with skins and eyes

SECTION 8 - EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters/ Occupational exposure limits: **ACGIH - TLV:** <500 mg / m^3

Appropriate engineering control measures:
Use only with adequate ventilation. Provide general and/or local exhaust ventilation to control airborne levels below exposure guidelines.

Personal Protection:
Use protective equipment such as rubber/PVC gloves, protective glasses. Respiratory protection is required in insufficiently ventilated working areas and during spraying. An air-fed mask, or for short period of work, a combination of charcoal filter and particulate filter is recommended. In the case of hypersensitivity of the respiratory tract (e.g. asthmatics and those who suffer from chronic bronchitis), it is inadvisable to work with the product.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odour:	Coloured liquid with aromatic odour
Solubility in water:	Insoluble
Boiling Point:	135 ^{0} C
Specific Gravity:	1.35 – 1.50 g/cm3
PH:	N.A.
Flash Point (T.C.C.):	29.0 deg. C **Flammable Limits - Upper:** 7.6 % **Lower:** 1.7 %
Vapour Pressure:	633.3 mm Hg at 38^0 C
Vapour Density (Air = 1.0):	N.D.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity/ Incompatible materials: Aqueous and/or Inorganic chemicals. Avoid contact with oxidizing agents, acids & bases.

Chemical stability: Stable under normal temperature and pressure. Exposure to elevated temperature will decompose product.

Possibility of hazardous reaction: Cause exothermic reactions in contact with oxidizing agents, strong acids, and amines.

Condition to avoid: Do not store above 50°C.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Effects: Based on information of components.
Ingestion: LD-50 (Rats): > 2000 mg/kg
Eye irritation: Slight eye irritation
Skin contact: Non-irritant

SECTION 12 – ECOLOGICAL INFORMATION

Product is an aquatic pollutant. Avoid contamination of waterways, wastewater, or soil. Not degradable and insoluble in water.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal method:
Dispose of in an approved waste facility according to local regulations. Do not dump into sewers, ground or into any body of water.

SECTION 14 – TRANSPORT INFORMATION

UN Number / Class	: UN1263 / Class 3
Packing PG	: PG III
HS Code	: 32089029

SECTION 15 – REGULATORY INFORMATION

International regulation:

Classification:	This product is classified as flammable liquid under EC Classification.	
Risk phrases:	R36	Irritating to eyes.
	R38	Irritating to skin.
	R43	May cause sensitization by skin contact.
Safety phrases:	S26	In case of contact with skin, rinse immediately with plenty of water and seek medical advice.
	S28	After contact with, wash immediately with plenty of water and soap.
	S37	Wear suitable gloves.
	S39	Wear eye/ face protection.

NOTICE: SDS is correct at date of publication. It is not necessarily fully adequate for every circumstance, nor to be confused with or followed in violation of applicable laws or insurance requirements. Health hazards and effects of over-exposure apply only to negligent handling or misuse of product in its concentrated form (as supplied) and not routine exposure to diluted product under normal use. No warranty, express or implied, of merchantability, fitness or accuracy of data is made; as such the vendor assumes no responsibility for injury or damages resulting from use of this product.

SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product Identifier: KLEN 1308FC - Hardener

Other means of identification: Epoxy Floor Coating

Date of SDS: 23 May 2023

Recommended use and restriction on use: This product is a epoxy coating to be used together with ***KLEN 1308FC***.

Supplier: Klenco (Singapore) Pte Ltd.
Address: 18 Gul Crescent, Singapore 629527
Department: Chemical
Person in Charge: Chemist

Phone: (65) 6862 3388
Fax: (65) 6861 7575
Email: info@klenco-asia.com
Emergency contact: (65) 6862 3388 Ext 249

SECTION 2 - HAZARDS IDENTIFICATION

GHS classification: Flammable liquid: Category 3; Skin irritation: Category 2; Specific target organ toxicity (repeated exposure): Category 4; Serious eye damage : Category 1

GHS label elements: Pictogram: Signal word: Danger

Hazard statements:
H226: Flammable liquid and vapor
H315: Causes skin irritation
H318: Causes serious eye damage
H373: May cause damage to organs through prolonged or repeated exposure (Hearing organs)

Precaution statements:
P210: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking
P233: Keep container tightly closed
P260: Do not breathe vapor or spray
P264: Wash hands thoroughly after handling
P280: Wear protective gloves/protective clothing/eye protection/face protection.

SECTION 3 - COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Identification	Component & Composition	*Chemical Formula*	*CAS NO.*	*EC NO.*
Polyaminoamide	< 40.0 %		-	polymer
Xylene	< 30.0 %	C_8H_{10}	1330-20-7	215-535-7
Isobutyl Alcohol	< 10.0 %	$C_4H_{10}O$	78-83-1	201-148-0

SECTION 4 – FIRST AID MEASURES

Inhalation: Move to area of fresh air. If breathing has stopped, artificial respiration should be started. Oxygen may be administered if available. Call a physician. Never give anything by mouth to an unconscious person.

Skin contact: Wash with large amounts of soap and water. If irritation persists, consult a physician.

Eye contact: Flush with cool water for at least 15 minutes. Then consult a physician immediately.

Ingestion: Do not induce vomiting. Wash mouth with plenty of water. Call a physician immediately.

Notes to Physicians: Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable fire-extinguishing media:
Carbon dioxide, foam , dry powder fire extinguishers. In case of larger fires, water spray should be used.

Specific hazards arising from the chemical:
Flashbacks along vapor trail may occur. This material may be ignited by heat, sparks, flames, or static electricity. Close containers may explode when exposed to extreme heat.

Special protective actions for fire fighters:
Fire fighters who may be exposed to the products of combustion should wear a self-contained breathing apparatus with full protective equipment. Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame. Avoid spreading burning liquid with water used for cooling purposes.

SECTION 6 - ACCIDENTIAL RELEASE MEASURE

Personal precautions, protective equipment, and emergency measure:
Use proper protective equipment (chemical protection suit, gloves, goggles, mask, etc). Ensure adequate ventilation/exhaust extraction. Keep unauthorized personnel away.

Environmental precautions: Chemical substance should not be released into the environment (water, soil).

Methods and materials for containment and cleaning up:
Ventilation is required. Use self-contained breathing apparatus if necessary. Eliminate all sources of ignition. Avoid breathing vapor, ventilate area. Remove with inert absorbent and non- sparking tools.

SECTION 7 - HANDLING AND STORAGE

Precaution for safe handling: Wash thoroughly after handling, especially before eating and drinking, Wash contaminated goggles, face-shield, and gloves. Launder contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities: Keep container dry and tightly closed in a cool and well-ventilated place. Avoid exposure to temperatures above 50°C. Ensure adequate ventilation or exhaust ventilation in the working area. Exhaust ventilation is necessary if product is sprayed. Avoid contact with skins and eyes

SECTION 8 - EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters/ Occupational exposure limits: **ACGIH - TLV:** <500 mg / m^3

Appropriate engineering control measures:
Use only with adequate ventilation. Provide general and/or local exhaust ventilation to control airborne levels below exposure guidelines.

Personal Protection: Use protective equipment such as rubber/PVC gloves; protective glasses. Use an approved air-purifying respirator depending on area of usage and exposure.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odour:	Coloured liquid with aromatic odour
Solubility in water:	Insoluble
Boiling Point:	135 deg. C
Specific Gravity:	0.90 +/- 0.02 g/cm3
PH:	N.A.
Flash Point (T.C.C.):	29.0 deg. C **Flammable Limits - Upper:** 7.6 % **Lower:** 1.7 %
Vapour Pressure:	633.3 mm Hg at 38 deg. C
Vapour Density (Air = 1.0):	N.D.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity/ Incompatible materials: Aqueous and/or Inorganic chemicals. Avoid contact with oxidizing agents, acids & bases.

Chemical stability: Stable under normal temperature and pressure. Exposure to elevated temperature will decompose product.

Possibility of hazardous reaction: Cause exothermic reactions in contact with oxidizing agents, strong acids and amines.

Condition to avoid: Do not store above 50°C..

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Effects: Based on information of components
Inhalation: LCD-50(Rat): > 5000 mg/kg
Eye irritation (Rabbit): irritating
Skin contact (Dermal rabbit): irritating

SECTION 12 – ECOLOGICAL INFORMATION

Product is an aquatic pollutant. Avoid contamination waterways, wastewater or soil. Not degradable and insoluble in water.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal method:
Dispose off in an approved waste facility according to local regulations. Do not dump into sewers, ground or into any body of water.

SECTION 14 – TRANSPORT INFORMATION

UN Number / Class	: UN1263 / Class 3
Packing PG	: PG III
HS Code	: 32089029

SECTION 15 – REGULATORY INFORMATION

International regulation:

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Risk phrases:	R36	Irritating to eyes
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	R43	May cause sensitization by skin contact
Safety phrases:	S26	In case of contact with skin, rinse immediately with plenty of water and seek medical advice
	S28	After contact with, wash immediately with plenty of water and soap
	S37	Wear suitable gloves
	S39	Wear eye/ face protection