

# KDF

Sports Flooring Systems & Building Materials

## POLEPOX COAT 814 INDUSTRIAL FLOORING



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KDF goes far beyond trade, providing consultancy in marketing and also technical support all the way, from the costing till the finalization of the project. Operating under the requirements of ISO 9001/2015 for production, trade and also application, we make sure our products are first applied successfully at site by our own people before we launch them abroad.

Therefore, our systems have all stood the real life test in different climates, from Middle East till North Europe, and this is one of our main assets, enabling us to provide full and vertical technical support from specifying to final application plus supervision when required or even full application and costing.

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# PHOTOGRAPHS OF PROJECTS



# POLYMER INSTITUTE CERTIFICATE FOR POLEPOX FLOOR 814



## Polymer Institut

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Akkreditiertes Prüflaboratorium nach DIN EN ISO 17025 - DAP-PL-01.004-00

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Notified body under Construction Products Directive (89/106 EEC) - Ident.-no 1119



## Test report

### P 4730-1-e

Testing order:

**Testing of plastic material**

**Epoxy Plasticoat (814)**

Customer:

**Polat S. A.  
34, 25th Martiou Str., N. Efkarpia  
56429 Thessaloniki/Greece**

Persons in charge:

**J. Magner  
Dipl.-Ing. (FH) N. Treichel**

Date of the test report:

**2007-11-01**

This test report comprises:

**9 pages**

The test results exclusively refer to the tested materials.

The publication of the test report in extracts, and references to tests for advertising purposes require our written agreement in each individual case.

## POLEPOX COAT 814

### HARDCOAT SYSTEM

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**POLEPOX COAT 814 is epoxy-based, self-leveling, two-component coating.**

- Colored, industrial hard coating, suitable for indoor areas with medium and medium-hard traffic.
- Creates colored, easy-to-clean flooring without joints, not requiring maintenance and meeting health standards.
- Resistant to acid solutions, alkalis, oil, grease, wastes.
- Prevents floorings from creating dust, strengthening their durability and resistance.
- Resistant to mechanical stresses, wearing from friction and chemical effects.
- It is ideal for painting industrial troweled floorings, mosaics, cement surfaces, decks, bio-cleanings, water baths.

**Areas of application: food industries, car workshops, parking areas, bio-cleanings, production plants, hospitals for antibacterial use supermarkets, labs, warehouses etc.**

#### **Preparation – Application**

**Applied only on dry, smooth concrete surfaces(over 30 days old) and protected from arising humidity and free of materials that might prevent bonding e.g. dust, loose particles, grease etc.** The success in the application has also to do with the preparation of the subfloor.

- **Good, dry** cleaning of the surface from dust and residues with vacuum cleaner and squeegees.
- Priming of the surface with **POLEPOX-PR 824** in two or more layers, until the surface is saturated and a film is created. Consumption: 250-600 gr/m<sup>2</sup>, depending on the absorption of the underlay(smooth or rough, old or new).
- After hardening of the primer (2-12 hours depending on the ambient temperature) and within 24 hours, follows the application of **POLEPOX COAT 814**.
- Good mixing of components A (resin) & B (hardener) packed into separate containers in fixed weight proportion and the epoxy mixture is poured on the floor and spread using rolls. The tool which to be used depends on the desirable thickness of the flooring.
- Following the application of the **POLEPOX COAT 814**, the self-leveling layer should be rolled using a special spiky-roller in order to release any possibly entrapped air and avoid the formation of bubbles.

## Important Remarks

- During summer or during temperatures over 40 degrees, ideal time for the application of **POLEPOX COAT 814** is between 22:00 and 09:00 and temperature less than 40°C, while in the winter, the minimum bearing temperature during application and drying should be over 10°C.
- For the creation of a completely non-slip surface, it is recommended on a still fresh layer the dredging of dry, quartz sand 0,1-0,4 mm or 0,4-0,8 mm depending on the desired anti-slipping effect. Consumption of quartz sand: approx. 4 kg/m<sup>2</sup>. After hardening of **POLEPOX COAT 814**, any loose grains are being removed using a high suction vacuum cleaner. Then a finishing layer of **POLEPOX COAT 814** is applied for the creation of an acid proof, easy to clean, non-slip surface with consumption: 0,7-1 kg/m<sup>2</sup>.

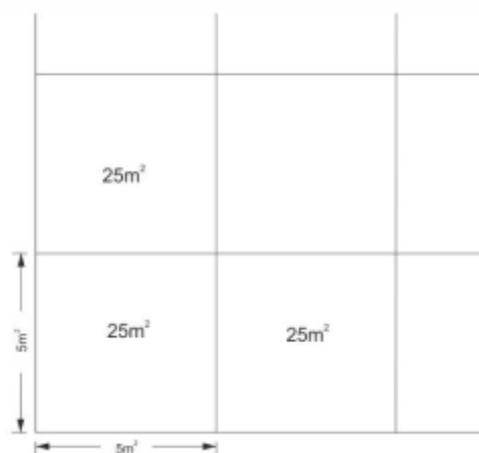
## Substrate

**Concrete surface must be power-trowelled without cracks and must be smooth with a slope of 0.7-1% and humidity under 4% in 10cm depth of concrete.**

Concrete must also be **dry at least for 40 days** and then the application takes place if there is no rising humidity for the sub-floor. Before the application takes place, there must be proper grinding of the surface by a grinding machine to open the pores accordingly and also a measurement by special instrument to measure humidity on the surface and in 10cm under the surface.

Generally concrete is a risky sub-floor and there may be problems with rising humidity, especially in areas where the sea level is really high and when the sea is close or in areas near greenery.

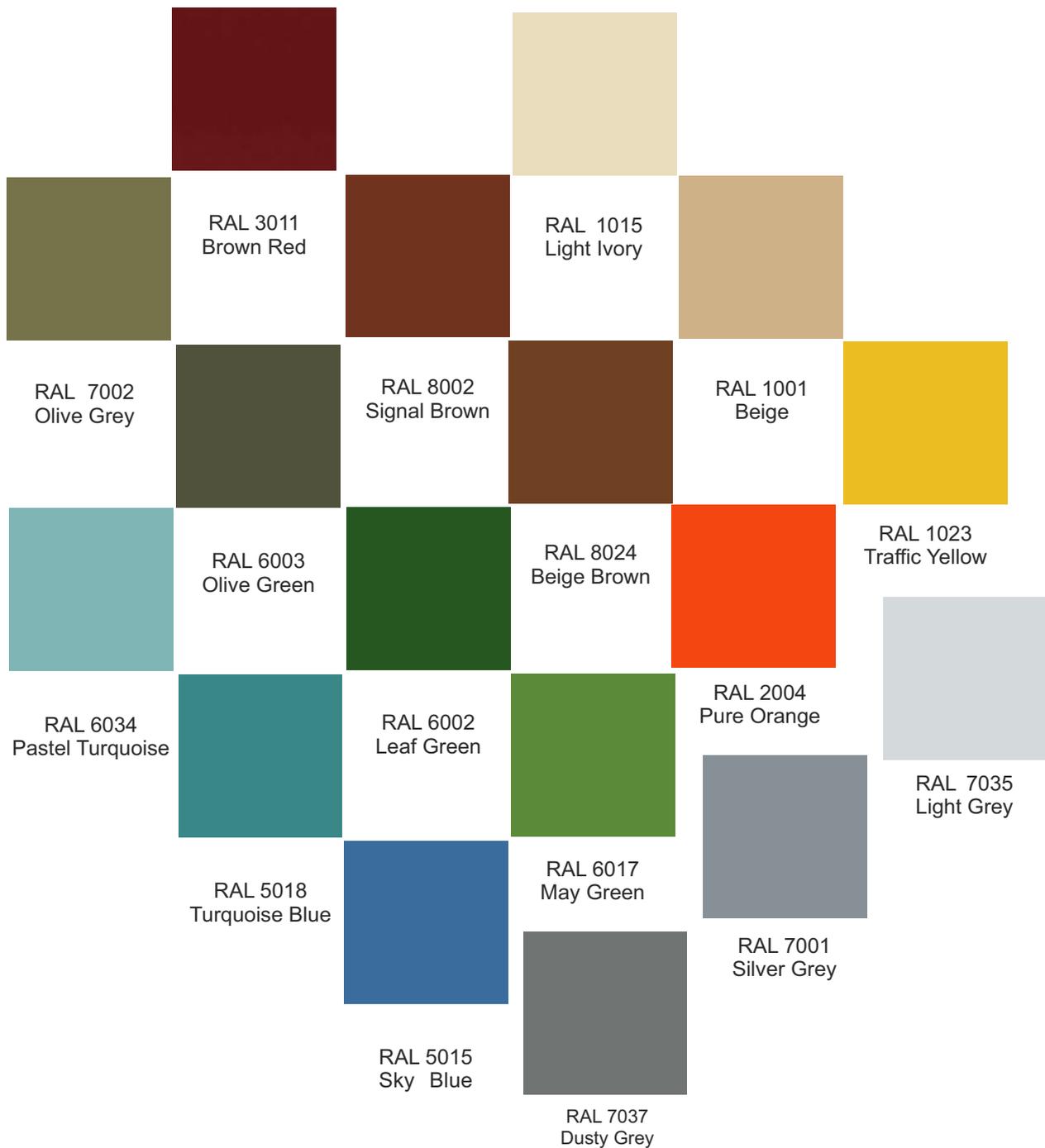
**Always make expansion joints in large areas of concrete, in order to avoid uncontrollable cracks and failures.** Joints should be every 25 square meters creating a grid of 5x5 meters or close to that.



<b><u>SUBSTRATE REQUIREMENTS</u></b>	Concrete quality	at least C20/25
	Age:	at least 40 days
	Moisture content:	below 4%

**Colors:** Following colorchart.

# POLEPOX COAT 814 COLORCHART



The colors may vary slightly from the original due to digital representation.

# POLEPOX-PR 824

## TRANSPARENT, EPOXY-BASED RESIN, USED AS AN ADHESIVE COMPONENT BETWEEN CONCRETE SURFACES AND EPOXY COATINGS

### GENERAL CHARACTERISTICS

**POLEPOX-PR 824** is a clear, epoxy, two-component resin, which is used as an adhesive component between concrete surfaces and final epoxy coatings.

- Penetrates in depth.
- Eliminates dust from decay in old & new floorings, reinforcing their durability.
- Offers high mechanical resistance and chemical protection against acid solutions, alkalis, oil, grease etc.
- It can be easily repaired locally if necessary, but must precede grinding of the surface with a sandpaper or mosaic machine.

### TECHNICAL DATA

Basis:	two-component epoxy resin
Appearance:	liquid
Colors:	transparent
Viscosity (A+B):	30-150 mPas at 25°C
Density (A+B):	0,88 ± 0,003 kg/l
Mixing proportion (A:B):	50:50 by weight
Application time:	approx. 1 h at 25°C
Final strength:	after 7 days at 25°C
Walkability:	after 2 days
Adhesive strength:	>3 N/mm <sup>2</sup> (breaking of concrete)
Temperature for the application and drying of the material:	10 – 38°C

### SUBSTRATE REQUIREMENTS

Concrete quality:	at least C20/25
Age:	at least 30 days
Moisture content:	below 4%

### PREPARATION - APPLICATION

**Applied only on dry surfaces. Protected from arising humidity and free of materials that might prevent bonding e.g. dust, loose particles, grease etc.** The success in the application depends on the right preparation of the underlay and use of the material.

- Treatment of the surface with a mosaic machine, or with sandblast or rotor machine, depending on the thickness of the final coating.
- **Good, dry** cleaning of the surface from dust and residues with vacuum cleaner and use of squeegees.
- Caution must be taken so that temperature of the substrate as well as ambient air remains above 12°C during application and curing of the materials while relative environment humidity does not exceed 75%.
- Good mixing of components A (resin) & B (hardener) packed into separate containers in fixed weight proportions. Mixing should be performed using a low revolution mixer (300-600

rpm) for 1-2 min. Stirring of the mixture should be performed thoroughly near the sides and bottom of the container in order to achieve uniform dispersion of the hardener.

- In case of troweled surfaces when there is a need for a penetrating material, it is suggested the application of the **POLEPOX-PR 824** in two or more layers.
- Then, application of one or more layers, with **POLEPOX-PR 824**, until the surface is saturated and a film is created. If mat spots appear, then another layer is necessary. The next layer follows the other before the previous starts to dry. The number of layers vary from one surface to another depending on the absorbency.

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#### **CONSUMPTION**

250-600 gr/m<sup>2</sup> in two layers depending on the type and the absorbency of the underlay.

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#### **APPLICATION TOOLS**

Nappy rolls, brushes, squeegees for smooth industrial surfaces. Tools should be cleaned with solvent immediately after use.

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#### **PACKAGING**

Supplied in packages of 30 Kg (two drums). Components A and B have the fixed weight proportion.

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#### **STORAGE**

One year in unopened containers in dry places with minimum temperature 5°C and maximum temperature 30°C, protected from moisture and heat.

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#### **REMARKS**

- Working time of **POLEPOX-PR 824** decreases when ambient temperature rises.
- Prolonged storage of partially used containers must be avoided as contact with atmospheric moisture will result in skinning and clouding of the product.
- **It cannot be applied in thickness for filling cracks or holes.** In this case it can only be used if mixed with fine dry sand.
- Do not mix or apply unless surface, air and material temperatures are over 12°C during the next 24 hours.
- Do not apply to floors if there is moisture in the subfloor drive or hydrostatic pressure. Prior precautions measurements of humidity with special device are suggested.
- In case of cracks or holes we recommend the use of **EPOFIX-H 207**.
- The usage of mosaic machine must precede the application of **POLEPOX-PR 824** for the creation of pores and the right penetration of the material.
- In case old floors are going to be laid or a long period of time interferes between successive layers (twelve hours in summer or twenty four hours in winter), the surface must be thoroughly cleaned and ground prior to application of a new layer.
- After hardening, **POLEPOX-PR 824** is completely safe for health and meets all requirements for food industries.

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#### **CAUTION**

The application must take place in well-aired places using protective gloves. Skin or eye contact must be avoided, otherwise wash carefully with soap and water.

**For more information consult the material safety data sheet.**

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# POLEPOX COAT 814

## EPOXY-BASED, SELF-LEVELING, TWO-COMPONENT COATING

### GENERAL CHARACTERISTICS

**POLEPOX COAT 814** is epoxy-based, self-leveling, two-component coating.

- Creates colored, easy-to-clean flooring without joints, not requiring maintenance and meeting **health standards**.
- Resistant to acid solutions, alkalis, oil, grease, wastes.
- Prevents floorings from creating dust, strengthening their durability and resistance.
- Resistant to mechanical stresses, wearing from friction and chemical effects.
- It is ideal for painting industrial power-troweled floorings, mosaics, cement surfaces, decks, water baths, and silos.
- Areas of application: food industries, professional kitchens, car workshops, parking areas, waste treatment plants, production plants, hospitals for antibacterial use etc.

### TECHNICAL DATA

Basis:	epoxy, two-component resin
Appearance:	viscous liquid
Colors:	Available in 16 RAL colors and on request from RAL colors.
Viscosity (A+B):	1500-4000 mPa s at 25°C
Density (A+B):	1,550 0,003 Kg/lt
Application time:	approx. 30 min at 25°C
Final strength:	after 7 days at 25°C
Compressive strength (A+B):	55 N/mm <sup>2</sup> , 7 days at 25°C
(ASTM D 695)	
Flexural strength (A+B):	33 N/mm <sup>2</sup> , 7 days at 25°C
(Din 1164)	
Temperature for the application and drying of the material:	10 - 38°C
Hardness according to SHORE D:	78 2
Walkability:	after 2 days at 25 °C
Adhesive strength:	>3 N/mm <sup>2</sup> (breaking of concrete)

### SUBSTRATE REQUIREMENTS

Concrete quality:	at least C20/25
Age:	at least 30 days
Moisture content:	below 4%

### PREPARATION - APPLICATION

**Applied only on dry surfaces. Protected from arising humidity and free of materials that might prevent bonding e.g. dust, loose particles, grease etc.** The success in the application depends on the right preparation of the underlay and use of the material.

- Treatment of the surface with grinding machine (mosaic machine, milling machine, scarifier, sandblasting or rotor machine) depending on the thickness of the final coating.
- **Good, dry** cleaning of the surface from dust and residues with vacuum cleaner and squeegees.
- Caution must be taken so that temperature of the substrate as well as ambient air remains above 12°C during application and curing of the materials while relative environment humidity does not exceed 75%.
- Priming of the surface with **POLEPOX-PR 824** in two or more layers. Then, application of one or more layers, with **POLEPOX-PR 824**, until the surface is saturated and a film is created. Consumption: 250-600 gr/m<sup>2</sup>, depending on the absorption of the underlay.
- After hardening of the primer (2-12 hours depending on the ambient temperature) and within 24 hours, follows the application of **POLEPOX COAT 814**.
- Good mixing of components A (resin) & B (hardener) packed into separate containers in fixed weight proportions. Mixing should be performed using a low revolution mixer (300-600 rpm) for 1-2 min. Stirring of the mixture should be performed thoroughly near the sides and bottom of the container in order to achieve uniform dispersion of the hardener.
- The epoxy mixture is poured on the floor and spread using rolls. The tool which to be used depends on the desirable thickness.
- Following the application of the **POLEPOX COAT 814**, the self-leveling layer should be rolled using a special spiky-roller in order to release any possibly entrapped air and avoid the formation of bubbles.
- For the creation of a completely non-slip surface, it is recommended on a still fresh layer the dredging of dry, quartz sand 0,1-0,4mm or 0,4-0,8mm depending on the desired anti-slipping effect. After hardening of **POLEPOX COAT 814**, any loose grains are being removed using a high suction vacuum cleaner. Finally a finishing layer of **POLEPOX COAT 814** is applied for the creation of an acid proof, easy to clean, non-slip surface. Consumption: 0,5-1 kg/m<sup>2</sup> depends on the right preparation of the underlay and use of the material.

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#### CONSUMPTION

- 500-700 gr/m<sup>2</sup> as paint.
- 1 kg/m<sup>2</sup>/0,7mm as paint for light circulation.
- 1,5 kg/m<sup>2</sup>/1mm as paint for medium circulation.

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#### APPLICATION TOOLS

Paint rollers, depending the desired thickness. Tools should be cleaned with solvent immediately after use.

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#### PACKAGING

Supplied in sets of 25 kg (two drums). Components A and B have the fixed weight proportion.

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#### STORAGE

One year in unopened containers in dry places with minimum temperature 5°C and maximum temperature 30°C, protected from moisture and heat.

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#### REMARKS

- Working time of **POLEPOX COAT 814** decreases when ambient temperature rises.
- Prolonged storage of partially used containers must be avoided as contact with atmospheric moisture will result in skinning and clouding of the product.
- In case old floors are going to be laid or a long period of time (12 hours for summer and 24 hours for winter) interferes between successive layers, the surface must be thoroughly cleaned and ground prior to application of a new layer.

- Do not mix or apply unless surface, air and material temperatures are over 12°C during the next 24 hours.
  - Do not apply to floors if there is moisture in the subfloor drive or hydrostatic pressure. Prior precautions measurements of humidity with special device are suggested.
  - For lining thickness from 2mm till 4mm, it is recommended the use of **POLEPOX FLOOR 817**.
  - **POLEPOX COAT 814** will yellow upon prolonged exposure to sunlight or high-intensity artificial lights. A urethane topcoat is highly recommended for color stability.
  - After hardening, **POLEPOX COAT 814** is completely safe for health and meets all requirements for food industries, hospitals, etc.
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### **CAUTION**

The application must take place in well-aired places using protective gloves. Skin or eye contact must be avoided, otherwise wash carefully with soap and water.

**For more information consult the material safety data sheet.**

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The information given here is true, represents our best knowledge and is based not only on laboratory work, but also on field experience. However, because of numerous factors affecting results we offer this information without any guarantee and no patent liability is assumed. For additional information or questions, contact the technical department of KDF LTD.

# CERTIFICATES OF KDF Ltd



ISO KDF Ltd



POLTRACK SPRAYCOAT



POLTRACK SANDWICH



POLTRACK FULL-PU



POLTRACK FULL-PU



POLYFLEX AEL-EX



FLEXFLOOR-EX



SPORTFLOOR-EX



SPORTFLOOR-EX FAST



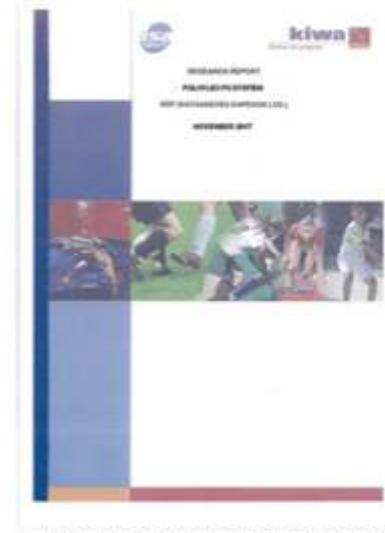
# CERTIFICATES OF KDF Ltd



**PLAYPREM**



**POLTRACK EQUINE**



**POLYFLEX PU-BADMINTON**



**PAH TEST REPORT  
PU BINDER 1118**



**PAH TEST REPORT  
PU BINDER 1125 AL**



**PAH TEST REPORT  
EPDM 856**



**PAH TEST REPORT  
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