

W-POLI HPD 45

PRODUCT DESCRIPTION

Polyaspartic primer/finish. High solids, excellent color and gloss retention, extra-fast drying.

RECOMMENDED USE

The product provides a high-gloss, chemically resistant finish, widely used for painting equipment in aggressive industrial environments where both durability and aesthetics are required. Recommended for chemical, petrochemical, pulp and paper, sugar and ethanol, transportation industries, among others.

CERTIFICATIONS AND APPROVALS

When supplied to comply with the ROHS Directive (Restriction of Certain Hazardous Substances), this product includes the letter R in its nomenclature description.

For factory production items, the product complies with Petrobras Standard **Petrobras N 2943 - Annex G - Requirements for polyaspartic coatings.

For items produced through the tintometric system, the product complies with Petrobras Standard Petrobras N 2943 - Annex B - Requirements for qualification of finishing coatings for atmospheric corrosion.

PACKAGING

Component A	3.6L Package containing 2.4L 20L Package containing 13.3L
Component B	1.5L Package containing 1.2L 3.6L Package containing 3.35L

CHARACTERISTICS

Color	According to customer standard. RAL and Munsell chart.
Gloss	Gloss
VOC content	147.97 g/l
Volume Solids	83 ± 2% (ISO 3233) for items produced through the tintometric system, identified with the letter T in the product designation.
Volume Solids	88 ± 2% (ISO 3233)
Shelf Life	24 months
Dry Film Thickness	70 µm - 300 µm
Dry Heat Resistance	Maximum temperature 120 °C. The product maintains its chemical properties up to a temperature of 120 °C, but from 60°C, color and gloss variations in the paint may occur.
Theoretical Coverage	4,76 m ² /l without dilution at a dry film thickness of 185 µm. Loss factors during application are not considered.

DRYING

Drying

	10 °C	25 °C	35 °C
Touch	3 hours	1 hour	45 min
Stickiness	6 hours	3 hours	2 hours
Final	168 hours	168 hours	168 hours

Recoat Drying

	10 °C	25 °C	35 °C
Minimum	8 hours	5 hours	4 hours
Maximum	48 hours	48 hours	48 hours

SURFACE PREPARATION

Standard Surface Preparation

The performance of this product is related to the degree of surface preparation. In case of doubts, for more information, consult WEG's Technical Department.

The surface must be clean, dry, and free of contaminants. Completely remove oils, greases, and fats according to SSPC-SP1.

Remove accumulated dirt using a dry brush, clean dry cloth, compressed air blow, vacuum, or a combination of these. Remove soluble salts by washing with plenty of fresh water, preferably under low pressure (up to 5,000 psi), according to SSPC-SP12/NACE No. 5 standard.

Recommended Surface Profile

It is recommended a roughness profile between 60 and 85 micrometers.

Abrasive Blasting

Perform abrasive blasting to near-white metal, Sa 2½ grade, according to ISO 8501-1 visual standard (A Sa 2½, B Sa 2½, C Sa 2½, D Sa 2½), or according to SSPC-SP10/NACE No. 2, visual standard SSPC-VIS 1 (A SP10, B SP10, C SP10, D SP10, G1 SP10, G2 SP10, G3 SP10).

Inspect the freshly blasted surface, observing defects that may appear after treatment. Correct them by grinding, filling with welds and/or epoxy putty.

If oxidation occurs between the end of abrasive blasting and coating application, the surface must be blasted again until the specified visual standard is achieved.

Maintenance and Repair

NOTE: Respect the recoating interval for subsequent coat application. If exceeded, perform light manual/mechanical sanding to break the previous coat gloss, followed by dust and residue cleaning to ensure better adhesion between paint layers.

Over Aged Coating

It is recommended to test the paint on a small area to check compatibility and ensure aged paint is well adhered. Loose or poorly adhered paints must be removed. Repainting should be done only on well-preserved surfaces.

New Constructions

For new construction, treat overspray, weld beads, damaged areas, edges, and sharp corners by abrasive blasting grade Sa 2½ or SSPC-SP10, visual standard ISO 8501-1. If not possible, consult WEG Technical Department.

APPLICATION PREPARATION

Mixing

Homogenize the content of each component using mechanical or pneumatic stirring (A and B). Ensure no sediment remains at the bottom of the container. Add component B to component A in the indicated mixing ratio under stirring until completely homogenized, respecting the mixing ratio.

For the aluminum version, manual homogenization is recommended as per N-13, with the option of light pneumatic stirring if necessary, avoiding changes in color and/or metallic effect.

Mixing Ratio

By volume: 2 A x 1 B.

Thinner

DILUENT PU 5043

Alternative Thinners

PU 5003 Diluent - Recommended for temperatures below 25 °C.

PU 5007 Diluent - Recommended for temperatures above 35 °C and baking cure.

Thinner PU 5043 - For temperatures between 25°C and 35°C.

Dilution

Depending on the application method, dilute to a maximum of 15%.

Notes

The amount of Diluent may vary depending on the type of equipment used and environmental conditions during application. Only add Diluent after complete mixing of the other components. Do not dilute with solvents not allowed



by local legislation, and do not exceed the indicated dilution percentage. Excessive dilution may affect film formation, appearance, and make it difficult to achieve the specified thickness.

Pot Life

1 h

The shelf life of the mixture is reduced as the ambient temperature increases.

The pot-life test of the mixture is carried out according to ABNT NBR 15742; however, different volumes of paint prepared at once, combined with varying ambient and paint temperatures, will affect the mixture's shelf life, potentially resulting in outcomes different from those stated in this technical bulletin.

APPLICATION METHODS

Conventional Spray Gun

Spray gun: JGA 502/3 Devilbiss or equivalent
Fluid nozzle: EX
Air cap: 704
Atomization pressure: 60 - 65 psi
Tank pressure: 10 - 20 psi.

Airless Spray Gun

Airless: Use minimum pump 60:1
Fluid pressure: 1500 - 2500 psi
Hose: 3/8" inner diameter
Nozzle: 0.015" - 0.021".

Roller

Use a short-haired, seamless wool or synthetic roller for epoxy paints.
NOTE: In this application method, the product may show variations in flow.

Brush

Recommended only for small area touch-ups or "stripe coat" (screws, nuts, weld beads, sharp corners, and touch-ups).
For application with brush and/or roller, it may be necessary to apply two or more coats to achieve a uniform layer and the recommended film thickness.

Cleaning of the equipments:

DILUENT PU 5043

Notes

The data presented serves as a guide and similar equipment may be used.
Changes in pressures and nozzle sizes may be necessary to improve spraying characteristics. Purge the compressed air line to avoid paint contamination.
Before application, ensure that the equipment and respective components are clean and in optimal condition.
After mixing two-component products, if there are application stops and the pot life has been exceeded (paint shows variation in flow), it can no longer be re-thinned for later application.
Reinforce all sharp corners, gaps, and weld beads with a brush to avoid premature failures in these areas.

APPLICATION PERFORMANCE

For coatings applied in coastal areas exposed to sea spray, it is recommended to wash with fresh water between coats to remove deposited impurities.

Light colors may require more than one coat to achieve uniform coverage.

Do not apply the product after the pot life has been exceeded.

Painting is recommended only if surface temperature is at least 3°C above the dew point.

Substrate temperature, climatic and environmental conditions during application and curing, as well as applied film thickness, may affect drying time.

Must not be applied under adverse conditions, such as relative humidity (RH) above 85%, as color and appearance changes may occur.



Polyurethane systems (components A and B) are sensitive to relative humidity, which may cause defects in the dry film and reduction in pot life. After use, keep containers closed and protected.

Paintings performed with varying application methods on the same project may result in differences in gloss and final appearance.

On freshly painted surfaces in direct contact with water during the curing process, localized staining with color change (more visible in darker colors), curing delay, and compromised product performance may occur.

Small variations in color, appearance, and gloss (more noticeable in dark colors), as well as delayed curing and performance compromise, may occur during high humidity, rainy days, cold locations, or when parts dry outdoors.

SAFETY PRECAUTIONS

Product developed for industrial use intended for handling by qualified professionals. Carefully read all information contained in the SDS of this product, available at: www.weg.net.

Store in a covered and well-ventilated place. Keep the container tightly closed and away from sources of heat or ignition.

Use only in well-ventilated areas, avoiding the accumulation of flammable vapors. Keep the product away from heat and sources of ignition.

Do not inhale mists/vapors/aerosols generated during handling and/or application. Use protective gloves/protective clothing/eye protection/face protection.

Empty containers and materials with paint residues must be disposed of according to current legislation. Take care of the environment.

NOTE

The information contained in this technical bulletin is based on the experience and knowledge acquired in the field by WEG's technical team.

In the event of using the product without prior consultation with WEG regarding its suitability for the purpose for which the customer intends to use it, the customer acknowledges that the use will be at their own exclusive responsibility, and WEG is not liable for the behavior, safety, suitability, or durability of the product.

Some information mentioned in this bulletin is only an estimate and may vary due to factors beyond the manufacturer's control. Therefore, WEG does not guarantee and assumes no responsibility for performance, efficiency, or any material or personal damages resulting from the incorrect use of the products in question or from the information contained in this Technical Bulletin.

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