

W-POXI BLOCK HPP 40

PRODUCT DESCRIPTION

Two-component Novolac epoxy primer, high solids, high-build, aluminum-pigmented. Very low VOC. Tolerant to manually or mechanically cleaned or aged but adherent coatings. Excellent chemical, abrasion, and impact resistance. W-POXI BLOCK HPP 402 provides superior anticorrosive protection, surface hardness, and impermeability.

RECOMMENDED USE

Recommended for initial protection of carbon steel without mill scale and when corrosion makes abrasive blasting impractical. Particularly indicated for environments where anticorrosive and chemical resistance are essential requirements.

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.

PACKAGING

Component A	3.6L Package containing 3.05L
Component B	0.9L Package containing 0.55L

CHARACTERISTICS

Color	Aluminum.
Gloss	Semi-Gloss
VOC content	231.76 g/l
Volume Solids	85 ± 3% (ISO 3233)
Shelf Life	24 months
Dry Film Thickness	120 µm - 130 µm
Dry Heat Resistance	Maximum temperature 220 °C. The product maintains its chemical properties up to a temperature of 220 °C, but from 60°C, color and gloss variations in the paint may occur.
Theoretical Coverage	6,80 m ² /l without dilution at a dry film thickness of 125 µm. Loss factors during application are not considered.

DRYING

Drying

	10 °C	25 °C	35 °C
Touch	10 hours	4 hours	2 hours
Manipulation	24 hours	10 hours	6 hours
Final	240 hours	168 hours	168 hours
Pot life	120 min	90 min	60 min

Recoat Drying

	10 °C	25 °C	35 °C
Minimum	10 hours	4 hours	2 hours
Maximum	30 hours	24 hours	20 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 40 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.

For areas near marine environments, wash with fresh water at low pressure (minimum 3,000 psi) before abrasive blasting. In some cases, repeat washing after blasting to remove soluble contaminants and perform a new abrasive blasting.

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.

Water Jetting

Application of this product is allowed on hydroblasted surfaces showing moderate flash rust, WJ-2M, according to SSPC-VIS 4/NACE VIS 7 visual standard.

Perform hydroblasting (pressure # 10,000 psi) according to SSPC-SP 12/NACE No. 5, reaching WJ-2 grade (C WJ-2, D WJ-2, E WJ-2, F WJ-2, G WJ-2, and H WJ-2) of SSPC-VIS 4/NACE VIS 7 visual standard.

Hand and Power Tool Cleaning

Perform manual mechanical cleaning for carbon steel surfaces with oxidation grades C or D, according to SSPC-VIS 3 visual standards. For previously painted surfaces with grades E, F, or G, follow SSPC-VIS 3.

Mechanically treat the surface until achieving at least St 2 grade according to ISO 8501-1 visual standard or SSPC-SP 2, using SSPC-VIS 3 visual standard as guidance.

Maintenance and Repair

When the aged coating shows good adhesion, perform light sanding to break gloss, followed by dust and residue cleaning to ensure better adhesion between coats.

Carbon Steel Surfaces

Hard surface layers (e.g., layers resulting from flame cutting) must be removed by grinding before starting abrasive blasting.

All welds must be inspected and, if necessary, repaired before completing abrasive blasting. Porosities, cavities, weld splatter, etc., must be repaired with proper mechanical treatment or welding repair. In other areas, round edges and sharp corners (r # 2 mm, ISO 8501-3).

Over Primer

Respect the product recoat interval. If exceeded, perform light manual/mechanical sanding to break gloss and clean dust/residues for better adhesion between coats.

Over Aged Coating

For aged paint with good adhesion, perform light sanding to break gloss and clean dust/residues, ensuring better adhesion between coats.

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.

It is acceptable to adopt less stringent preparation standards as long as contaminant absence is ensured via high-pressure fresh water cleaning (5,000-10,000 psi) according to SSPC-SP12/NACE No.5. In case of doubt, consult the technical area.

Remove all contaminants from the existing paint. Areas where the film is not adhered must be removed with light blasting grade Sa 1 (brush off) or according to SSPC-SP7, ISO 8501-1 visual standard. Corrosion points, worn, or damaged areas must be prepared by commercial abrasive blasting grade Sa 2, ISO 8501-1 standard or SSPC-SP6/NACE No.3, SSPC-VIS 1 standard. If not possible, use rotary-mechanical tools according to SSPC-SP 11.

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.

Avoid prolonged mixing, as frictional heat will significantly reduce the product's shelflife.

Mixing Ratio

By volume: 5.5 A x 1 B.

Thinner

EPOXY DILUENT 3005

Dilution

Depending on the application method, dilute to a maximum of 10%.

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 30 min

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.

Induction Time

No induction time required.

In very hot locations, we recommend consulting WEG's Technical Department.

APPLICATION METHODS

Conventional Spray Gun

Spray gun: JGA 502/3 Devilbiss or equivalent
Fluid nozzle: EX
Air cap: 704
Atomization pressure: 50 - 70 psi
Tank pressure: 10 - 20 psi.

Airless Spray Gun

Airless: Use minimum pump 60:1
Fluid pressure: 3500 - 4500 psi
Hose: 3/8" inner diameter
Nozzle: 0.025" - 0.031"
Note: The fluid hose diameter must not be less than 1/2" with 3/8" at the whip, and its length must not exceed 5 meters.
Filter: mesh 60.

Roller

Use a short-haired, seamless wool or synthetic roller for epoxy paints.
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.

Brush

Recommended only for small area touch-ups or "stripe coat" (screws, nuts, weld beads, sharp corners, and touch-ups).

Cleaning of the equipments:

EPOXY DILUENT 3005

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.
Do not allow catalyzed product to remain in contact with



application equipment, as at temperatures above the indicated "pot life", the paint will show variation in flow and will harden, making cleaning difficult.

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.

In spray application, overlap each gun pass by 50%, finishing with a cross pass. This technique avoids uncovered or unprotected areas and ensures proper aesthetic finish.

Reinforce all sharp corners, gaps, and weld beads with a brush to avoid premature failures in these areas.

Clean all equipment immediately after use.

It is considered good practice to periodically wash the spraying equipment during the day. The cleaning frequency depends on the amount sprayed, temperature, and elapsed time, including all delays.

APPLICATION PERFORMANCE

The product must be stored between 20°C and 30°C to maintain the proper viscosity for application.

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

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

Do not use excessive air pressure. Properly adjust fluid and nozzle pressure for better atomization.

For optimal application properties, the paint temperature should be between 21°C and 27°C before mixing and application.

Before application, observe weather conditions: there must be no threat of rain or drizzle. Surface temperature must be at least 3°C above the dew point, and relative humidity should not exceed 85%. Adverse conditions may cause color variations and other characteristics. Consult WEG Technical Department.

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.

Epoxy systems may have longer curing times when exposed to low temperatures. For curing at temperatures below 10°C, consult the WEG Technical Department.

The product allows painting on recently water-blasted surfaces with slight traces of flash rust (or relatively advanced degree of flash rusting, equivalent to the "moderate" degree described in SSPC VIS4(I) / NACE N°7).

Epoxy-based products are well known for their excellent corrosion-resistant properties, although they have limited resistance to sunlight. When the applied coating is exposed to weathering, it may gradually lose its gloss, a phenomenon known as chalking, which can also cause a slight change in color. It is important to note that this chalking does not compromise the coating's corrosion protection.

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

It is not recommended to apply this product on surfaces with a water film, under direct rain impact, on freshly painted surfaces exposed to water during curing, in places with low temperatures, or in situations where parts are applied and left to dry outdoors, as localized staining with color change (more visible in dark 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.

Under adverse weather conditions in indoor and/or outdoor environments with high relative humidity, rain or drizzle, low or very low temperatures, and excessively high temperatures, variations in color and other product characteristics may occur. Please consult WEG's Technical Department for more information.

SYSTEM COMPATIBILITY AND MAINTENANCE REPAINTING



The primer repainting interval must be respected for the application of the topcoat. If the maximum interval indicated is exceeded, manual/mechanical sanding with sandpaper to remove gloss is necessary. The primer surface must be dry and free of contaminants.

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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