



W-POLI HBD 45

PRODUCT DESCRIPTION

Aromatic pure polyurea spray elastomer, fast curing, 100% solids, abrasion-resistant, flexible. Can be used alone or combined with other materials to produce coatings, membranes, wear layers, and resilient surfaces on metal and other substrates. Extremely fast gel time allows applications down to -40°C without special conditioning, producing a durable film of varying thickness with multiple-pass technique.

RECOMMENDED USE

Material indicated for metal structures, designed for industrial applications subjected to constant or intermittent corrosive and abrasive attacks. Shows excellent performance regarding adhesion, appearance, applicability, chemical and mechanical resistance when combined with a suitable sealer for concrete waterproofing. Can coat any properly prepared substrate. Flexible, accommodating substrate movement, but sufficiently resistant to remain intact under all conditions. Can be used indoors or outdoors. Suitable for repair of other films on metal and other substrates, in new construction and cold weather conditions.

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	200L Package containing 220L
Component B	200L Package containing 190L

CHARACTERISTICS

Color	Colors upon request.
Gloss	Semi-Gloss
Volume Solids	100% (ISO 3233)
Shelf Life	12 months
Dry Film Thickness	500 µm - 1.000 µm
Dry Heat Resistance	Maximum temperature 80 °C. The product maintains its chemical properties up to a temperature of 80 °C, but from 80°C, color and gloss variations in the paint may occur.
Theoretical Coverage	without dilution at a dry film thickness of 750 µm. Loss factors during application are not considered.

DRYING

Drying			
	10 °C	25 °C	35 °C
Toque	20 s	15 s	10 s

PHYSICOCHEMICAL CHARACTERISTICS

Tensile Strength (ASTM D 412)	186,0 MPa
Taber Abrasion Resistance CS-17 (ASTM D 4060)	-0,010 (g) / 1,000 CYCLES
Gel Time at 23°C	12 s
Set Time	42 s
Elongation (ASTM D 412)	627 %
Tear Resistance (ASTM D 624)	755,0 N/mm ²
Pull-Off Strength (ASTM D 4060/ASTM D 4541)	STEEL > 5 N/mm ²



Taber Abrasion Resistance H-18 -0.102 (g) / 1,000 CYCLES
(ASTM D 4060)

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.

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.

Concrete Surfaces

Mold release agents, cement laitance, grease, oil, wax, or any other contaminants that have penetrated or deposited on the surface must be removed, along with all accumulated dust.

For concrete waterproofing, the coating must be applied over PRR 301 sealer or another primer recommended by WEG TINTAS technical department.

Coating on old concrete only upon recommendation from WEG Technical Department.

Over Primer

Epoxy primer: over firmly adhered epoxy paints, adhesion by pull-off will be lower than application over standard abrasive blasting.

Applications over PRIMER ONA 415 must be observed according to technical specification.

APPLICATION PREPARATION

Mixing	Homogenize the contents of each component by mechanical or pneumatic agitation (A and B). Add component B to component A according to the indicated mixing ratio, under agitation, until fully homogenized. If necessary, use a heater at a temperature of up to 45°C for component A.
Mixing Ratio	By volume: 1 A x 1 B.
Thinner	Not applicable.
Dilution	Ready to use.
Notes	In very hot locations, we recommend consulting the WEG Technical Department.
Pot Life	6 seg 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

Spray

This product should be applied by spray using approved equipment. Use a 1:1 ratio pump with appropriate material heaters, as needed for individual application.

Cleaning of the equipments:

Not applicable.

Notes

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.
 Clean all equipment immediately after use.

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.

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

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

Complete polymerization to reach final resistance may take several days or weeks depending on various conditions. Users are advised to conduct their own independent testing.

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.

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.

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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