TECHNICAL DATA SHEET

W-POLI HSS 45

PRODUCT DESCRIPTION

Two-component solvent-free polyurethane resin-based product, developed for priming and as an adhesion bridge for polyurethane systems (Recommended for Creety TI system). It forms floor coating schemes with excellent abrasion, mechanical, chemical, physical, and thermal resistance.

RECOMMENDED USE

Product developed to seal and promote adhesion of baseboards, floors, walls, stairs, and channels in food and beverage industries, hospitals, laboratories, pulp and paper factories, chemical and petrochemical industries, sugar mills, alcohol distilleries, and other industrial floors. Indoor and outdoor use (see "Application Performance" field of this technical bulletin).

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	0.24 US gal Package containing 1.28 lbm 0.95 US gal Package containing 1.27 lbm 0.95 US gal Package containing 5.03 lbm
Component B	0.40 US gal Package containing 3.25 lbm

CHARACTERISTICS

Color	Colorless.
Gloss	Ultra-Matte
Volume Solids	98 ± 2% (ISO 3233)
Shelf Life	12 months
Dry Film Thickness	3.1 mils - 4.7 mils
Dry Heat Resistance	Maximum temperature 221 °F. The product maintains its chemical properties up to a temperature of 221 °F, but from 140°F, color and gloss variations in the paint may occur.
Theoretical Coverage	399.4 ft²/gal without dilution at a dry film thickness of 3.9 mils. Loss factors during application are not considered.

DRYING

Drying

	50 °F	77 °F	95 °F
Final	48 hours	24 hours	16 hours
Gel time	2 hours	1 hour	30 min

Recoat Drying

	50 °F	77 °F	95 °F
Minimum	8 hours	2 hours	1 hour
Minimum	24 hours	8 hours	6 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.

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.

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.

Reviewed on February 10th, 2026

Concrete Surfaces

Before painting, all masonry or concrete must be cured (28 days for cement mortar or concrete) and dry, without cracks, fissures, or voids, and perfectly adhered to the base or other mortar and coating layers.

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.

The performance of this product is associated with surface preparation. The surface must be clean, solid, free of any contaminants, fully dry, and have sufficient roughness to allow adhesion of the applied protection system.

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.
Mixing Ratio	By weight: 100 A x 64 B.
Thinner	Not applicable.
Dilution	Ready to use.
Pot Life	25 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.

APPLICATION METHODS

Roller	We recommend application with wool roller or brush until achieving a smooth, gel-like consistency for W-POLI RPA 455, W-POLI PRR 455, and W-POLI ANA 455 line.
Cleaning of the equipments:	Not applicable.
Notes	The data presented serves as a guide and similar equipment may be used.

APPLICATION PERFORMANCE

The product must be applied by a qualified and properly trained team.

Even when chalking occurs, the film is not impaired in terms of protection. 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.

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 must be between 69.8°F - 80.6°F before mixing and application.

We recommend painting only if the measured surface temperature is at least 5.4°F 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.

Application of the coating system may require the paints involved to be applied in two or more coats to achieve a uniform layer with dry film thickness suitable for the expected appearance and performance.

Product yield depends on the condition of the surface to be repaired. The theoretical calculation of paint quantity should consider surface condition. To achieve expected yield, control the amount of paint applied per area. Refer to the Application Manual for more information.

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

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.

Urethane resin-based products for concrete have excellent mechanical properties; however, they have low resistance to sunlight exposure. When the applied film is exposed to weathering, over time it will show a loss of gloss known as chalking, and consequently, a change in color tone.

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.

The information contained in this technical bulletin is subject to periodic modifications, without prior notice, due to our policy of continuous improvement and evolution of our products and services, providing quality solutions to meet the needs of our customers.

APPLICATION MANUAL

1. GENERAL RECOMMENDATIONS FOR PAINTING:

1.1. Environmental conditions, surface cleaning, interval between coats: Comply with all characteristics described in the technical data sheet.

1.2. No paint shall be applied if there is an expectation that the ambient temperature may drop to 32 °F before the paint has dried.

1.3. Paint shall not be applied during rain, fog, or mist, or when the relative humidity exceeds 85% (eighty-five percent), nor when such conditions are expected to occur, as this may compromise intercoat adhesion or total adhesion of the applied film.

1.4. Each coat of paint must have a uniform thickness, free from defects such as porosity, wrinkling, blistering, bubbles, craters, or impregnation of other visible contaminants.

1.5. Concrete surfaces must receive appropriate treatment to ensure proper performance of the paint system.

2. GENERAL RECOMMENDATIONS FOR FLOORING:

2.1. To allow the protective system to be applied, the surface must be clean, solid, free from any type of contaminant, completely dry, and sufficiently rough to ensure adhesion of the protective system to be Applied.

2.2. The floor must have a neutral (7) or slightly alkaline (10) pH.

2.3. No coating or paint shall be applied on concrete or subfloors containing curing accelerators unless representative tests indicate satisfactory adhesion of the painting system.

2.4. No coating or paint shall be applied unless the concrete (or mortar subfloor of cement and sand) is completely dry and cured for at least 28 days under normal climatic conditions.

2.5. Coatings shall not be applied on floors contaminated with oils or aggressive products. The floor must be effectively cleaned. If application is performed over contaminant residues, the coating film may detach and exhibit various types of failures and defects.

2.6. The concrete design must include prior waterproofing to prevent rising damp or groundwater from ascending through the concrete capillarity

, which may cause blistering and peeling of the coating.

2.7. Check for moisture presence in concrete according to ASTM D 4263, summarized below:
2.7.1. Attach a plastic sheet measuring 18 x 18 inches (457 mm x 457 mm) using 3M Silver Tape, ensuring all edges are well sealed;
2.7.2. Leave the plastic sheet sealed to the concrete for at least 16 hours;
2.7.3. After this period (between 16-24 hours), remove the plastic sheet and visually inspect both the underside of the sheet and the concrete surface for moisture presence;
2.7.4. Perform one test area sampling per H 495 ft² orproportional area;
2.7.5. Do not perform painting if any residual moisture is detected on the plastic sheets from the samples.

3. GENERAL RECOMMENDATIONS FOR PAINTING OVER AGED COATINGS:

3.1. An analysis must be performed to verify compatibility between the aged coating and the new system to be applied. If incompatible, painting shall not be performed, or all aged coating must be removed. If compatible, sanding (to break gloss and promote adhesion) and surface cleaning shall be performed.
3.2. If detachment of the aged coating occurs (even between compatible systems), scraping and/or full removal of the old coating must be performed. Tools such as steel scrapers, scarifiers, and grinders with G-16 - G-24 stones may be used.
3.3. After scraping, sanding, or any repair, the surface must be free from contaminants and residues.
3.4. Contact the WEG Paints Technical Department to evaluate the need for primer application.

4. PAINT APPLICATION (BASIC RECOMMENDED METHODOLOGY):

4.1. Initial Degreasing:
4.1.1. Thoroughly wet the entire surface with clean water, under high pressure and preferably hot;
4.1.2. Evenly spread a biodegradable detergent solution over the entire area, according to the detergent manufacturer's instructions;
4.1.3.Scrub vigorously using industrial scrubbers, grinders, and/or nylon brushes or stiff
brooms
4.1.4. Allow the solution to act for approximately 10 minutes;
4.1.5. Rinse thoroughly with clean water, under high pressure and preferably hot, and allow to dry;
4.1.6. Repeat the degreasing process as many times as necessary. Optionally, milling may be performed on localized areas with heavy oil or acid contamination, followed by the degreasing process described above.
IMPORTANT NOTE: Before beginning application of the painting system described below, the floor must be completely dry and free of moisture. A torch may be used to assist drying, always verifying dryness with the plastic sheet or aluminum foil test (ASTM D 4263). Before painting, concrete moisture content must not exceed 6%.
4.1.7. These technical recommendations aim to achieve the best performance of the painting system.
4.2. Surface Preparation:
4.2.1. Surface preparation shall comply with Standard SSPC SP-13/NACE No. 6, ICRI Technical Guideline No. 03732, and be compared to the visual standards expressed as CSP 1 to 9:

CSP 1 - Acid etching
CSP 2 - Grinding
CSP 3 - Light shotblast
CSP 4 - Light scarification
CSP 5 - Medium shotblast
CSP 6 - Medium scarification
CSP 7 - Heavy abrasive blast
CSP 8 - Scabbled (steel or tungsten inserts)
CSP 9 - Heavy scarification

4.2.2. The type of surface preparation will affect the paint system#s thicknessand, consequently, the material consumption and performance, as shown in the table below:

VISUAL STANDARD (ICRI TECHNICAL GUIDE)

CSP 1 - Acid etching
Profile: 13.5 mils ± 2.5
Approx.: 342.9 micrometers

CSP 2 - Grinding
Profile: 16 mils ± 2.5
Approx.: 406.4 micrometers

CSP 3 - Light shotblast
Profile: 19 mils ± 2.5
Approx.: 482.6 micrometers

CSP 4 - Light scarification
Profile: 25 mils ± 2.5
Approx.: 635.0 micrometers

CSP 5 - Medium shotblast
Profile: 33 mils ± 2.5

Approx.: 838.2 micrometers

CSP 6 - Medium scarification
Profile: 63 mils ± 2.5
Approx.: 1600.2 micrometers

CSP 7 - Heavy abrasive blast
Profile: 87.5 mils ± 5
Approx.: 2222.5 micrometers

CSP 8 - Scabbled (steel or tungsten inserts)
Profile: 105 mils ± 5
Approx.: 2667.0 micrometers

CSP 9 - Heavy scarification
Profile: 107 mils ± 5
Approx.: 2717.8 micrometers

4.2.3. Scarification (Milling):

4.2.3.1. This method is an excellent option for repairing and restoring damaged surfaces, suitable for both light and heavy work. These machines are recommended for cutting anti-slip grooves, removing contaminated concrete layers such as grease, oil, rubber, synthetic pavements, paints, splashes, traffic markings, and other floor surface applications. The milling machine consists of an electric (three-phase or single-phase) or gasoline motor that rotates a drum fitted with tungsten carbide tools that chip and abrade the surface. The depth of removal depends on the type and shape of the discs used.

4.2.4. Manual and Rotary Hammer Grinders:

4.2.4.1. Grinders are intended for surface preparation, leveling, roughening, cleaning, and polishing of floors and coatings. These machines operate with electric motors (three-phase or single-phase) and one or two multipurpose discs (3 stones or diamond inserts per disc). Depending on floor hardness, carborundum or tungsten carbide inserts may be used.

4.2.5. Captive Shot Blasting with Centrifugal Turbines:

4.2.5.1. Another meth

od of preparing concrete, especially floors, involves centrifugal turbines that project steel shot in a closed circuit. The turbine propels the shot against the concrete while a powerful vacuum removes dust and reclaims the abrasive for reuse. This process removes a few inches of concrete.

4.2.6. Acid Treatment: This type of surface treatment requires great care. Acid is only recommended for ground-level floors and walls, provided there is no infiltration risk, as acid attack on reinforcement can compromise structural strength and safety. When opting for this method, follow the steps below:

4.2.6.1. Pre-wet the surface, then apply a 15% hydrochloric acid (muriatic acid) solution in water (1 part commercial muriatic acid to 1 part water by volume). IMPORTANT NOTE: To calculate the required amount of solution, consider that 2.64 gal of muriatic acid solution covers approximately H 161-194 ft².

4.2.6.2. Evenly spread the acid solution on the surface using a nylon or stiff brush, avoiding puddles, and allow it to act until the surface roughness resembles 80-grit sandpaper.

4.2.6.3. Rinse thoroughly with plenty of water to remove all acid residue and achieve near-neutral pH.

4.2.6.4. Apply the first coat of primer or coating once the concrete is dry.

5. GENERAL RECOMMENDATIONS FOR PAINTING NEW FLOORS:

5.1. Follow all instructions in the technical data sheet described in this document, as well as the recommendations above.

5.2. In case of doubts regarding floor performance, do not apply any product and contact the WEG Paints Technical Department.

5.3. For surface preparation and application, it is recommended to hire specialized and qualified companies responsible for product application.