

POLYPROOF MAX PURE

PRODUCT DESCRIPTION

PolyProof Max Pure is a two-component waterproofing system based on pure polyurea with ultra-fast curing, designed for the application of elastic membranes with crack-bridging capability.

RECOMMENDED USE

POLYPROOF MAX PURE is a system designed for the waterproofing of concrete structures, including roofs and foundations. The product is applied directly on-site, forming a completely seamless coating, suitable for secondary containment in bunds, landfills, tunnels, canals, dam repairs, reservoirs, and similar structures.

It is suitable for use in wastewater treatment facilities and for waterproofing all types of hydraulic infrastructure, including those exposed to aggressive environments, offering high resistance to hydrogen sulfide (H₂S) and radon gas. When required, POLYPROOF MAX PURE may be top-coated with an aliphatic polyurethane to provide UV protection and minimize color changes.

It can be combined with different geotextiles to form continuous liners free of application joints.

PACKAGING

Component A	Packaging of 200L with 196kg. Packaging with 18.5kg.
Component B	Packaging: 200 L container with 220 kg of product. Packaging: 20 L container with 21 kg of product.

CHARACTERISTICS

Color	Blue. Gray. Black. Red Oxide.
Gloss	Gloss
Volume Solids	99 ± 1% (ISO 3233)
Dry Film Thickness	800 µm - 10.000 µm
Theoretical Coverage	Consumption of 1 kg/m ² , applied without dilution, to achieve a dry film thickness of 1,000 micrometers (1.0 mm). Application loss factors are not considered.
Specific Gravity	1.2 g/cm ³
Note	Color is achieved by adding pigment to Component B, in accordance with the project specifications. For waterproofing applications, the minimum recommended thickness is 2 mm.

DRYING

Drying	25 °C
Touch	1 min
Manipulation	2 min
Final	72 hours
Recoat Drying	25 °C
Minimum	-
Maximum	8 hours

PHYSICOCHEMICAL CHARACTERISTICS

Adhesion (ASTM D 4541)	ADHESION CONCRETE 4 MPa
Tensile Strength (ASTM D 412)	21,6 MPa
Taber Abrasion Resistance	10 mg

CS-17 (ASTM D 4060)

Elongation (ASTM D 412) 497 %

Tear Resistance (ASTM D 624) 69,0 N/mm²

PRODUCT	CONCENTRATION (%)	TEMPERATURE	GRADUATION	PRODUCT	CONCENTRATION (%)	TEMPERATURE	GRADUATION
DISTILLED WATER		176 °F	R	DIESEL		176 °F	R
SALT WATER		176 °F	R	HYDROCHLORIC ACID	37%	176 °F	L
XYLENE		176 °F	L	SODIUM HYPOCHLORITE	1%	176 °F	R
ETHYL ACETATE		176 °F	L	ENGINE OIL		176 °F	R
ISOPROPYL ALCOHOL		176 °F	L	PETROLEUM		73.4 °F	R
SODIUM HYDROXIDE	50%	176 °F	R	SULFAMIC ACID		140 °F	R
HYDROGEN PEROXIDE	33%	77 °F	R	OLEIC ACID		176 °F	L
SULFURIC ACID	10%	176 °F	R	GLYCERIN		176 °F	R
SULFURIC ACID	30%	176 °F	R	ETHANOL/WATER 20/80		176 °F	R
PHOSPHORIC ACID	54%	176 °F	R	UREA		176 °F	R
BLEACH		176 °F	R	AMMONIUM NITRATE		176 °F	R
AMMONIA		176 °F	R				
				Graduation: R - Resistant L - Limited resistance			
For more details regarding chemical resistance, consult WEG's technical department.							

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.

Concrete Surfaces

The performance of this product depends on the degree of surface preparation. The surface must be clean, sound, free from all types of contaminants, completely dry, and have sufficient roughness to ensure proper adhesion of the applied protection system.

The substrate must be completely clean and free from contaminants such as oil, grease, silicone, dust, and loose materials. Any surface irregularities must be removed before application. Coatings must not be applied over contaminated concrete. Release agents, cement laitance, grease stains, and other residues, as well as accumulated dust, must be removed to ensure a suitable surface for coating application.

The surface shall be mechanically prepared to achieve a surface profile between CSP 3 and CSP 4, in accordance with the recommendations of the International Concrete Repair Institute (ICRI).

Verify the presence of moisture in the concrete in accordance with ASTM D 4263. Before application, the concrete shall have a maximum residual moisture content of 4%.

The product must be applied over the appropriate primer, POLYPROOF SEALER 100 or POLYPROOF SEALER HIDRO. If the concrete has a residual moisture content greater than 4%, POLYPROOF SEALER HIDRO shall be used, allowing application on concrete with residual moisture content up to 8%.

Small Area Repairs

If a primer has been previously applied, the specified overcoating intervals between the primer and the polyurea application shall be observed.

For small-area repairs, prepare the surface in accordance with SSPC-SP 11 using power tools to achieve a minimum surface profile of 40 µm.

APPLICATION PREPARATION

Mixing

Mechanically mix Component B for 5 minutes.



Recirculating the material for heating purposes alone is not considered mixing and may cause problems during and after application.

Add the pigment to Component B.

Mixing Ratio

By volume: 1 A x 1 B.

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.

APPLICATION METHODS

Other application methods

POLYPROOF MAX PURE shall be applied exclusively using suitable hot plural-component spray equipment operated by qualified and experienced applicators.

At ambient temperatures below 20 °C, the pumps shall be preheated using heating blankets set between 30 °C and 40 °C.

Component B shall be thoroughly agitated before application and periodically during the spraying process to prevent settling of its chemical components.

The pigment shall always be incorporated into Component B using a mechanical mixer.

Pumps for Components A and B shall be equipped with desiccant dryers.

Compressed air shall be supplied through a suitable air dryer.

Primary heaters shall be set between 65 °C and 70 °C. Field adjustments may be made according to ambient conditions, mixing chamber size, and specific application requirements.

Adequate heating is essential. Insufficient heat may adversely affect mixing and the final physical properties of the coating.

Hose heaters shall be set to 70 °C, with field adjustments as required according to ambient conditions and mixing chamber characteristics.

For optimum performance, ensure that the spray pressure (not static pressure) is at least 155 bar.

For complete substrate preparation and/or repair procedures, consult your WEG Coatings technical representative.

Cleaning of Equipment

To maintain the equipment in good condition (spray gun, seals, and related components), cleaning with solvents is not recommended. Component A shall be completely removed after use to prevent curing inside hoses and equipment components.

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. 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.
 Do not leave material in hoses, guns, or equipment used for spraying. Thoroughly wash all used equipment.
 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

For optimum product performance, follow the recommendations below.

The substrate temperature shall be between 5 °C and 40 °C. Under all conditions, it shall remain at least 3 °C above the dew point temperature to prevent condensation on the surface.

Note: Under normal conditions (25 °C and 50% relative humidity), the membrane becomes resistant to rain splash after 10 minutes and can withstand light foot traffic after 1 hour. It achieves more than 90% of its final properties after 24 hours.

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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