TECHNICAL DATA SHEET

NEW TECH 512 ALUMINUM

PRODUCT DESCRIPTION

Waterborne two-component polyamine epoxy primer-finish with anticorrosive pigmentation, nanotechnology additives and fast drying. Provides excellent adhesion on carbon steel.

RECOMMENDED USE

Recommended for painting various parts and equipment.

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 2.88L
Component B	0.9L Package containing 0.72L

CHARACTERISTICS

Color	According to customer standard. RAL and Munsell chart.
Gloss	Matte
Volume Solids	33 ± 2% (ISO 3233)
Shelf Life	6 months
Dry Film Thickness	25 µm - 50 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	8,80 m2/l without dilution at a dry film thickness of 38 µm. Loss factors during application are not considered.

DRYING

Drying

	10 °C	25 °C	35 °C
Touch	6 hours	3 hours	1 hour
Manipulation	24 hours	12 hours	8 hours
Final	240 hours	240 hours	168 hours

Recoat Drying

	10 °C	25 °C	35 °C
Minimum	24 hours	16 hours	12 hours
Maximum	36 hours	36 hours	24 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.

Degreasing

Completely remove oils and greases by applying a degreasing product or according to the solvent cleaning method. Whenever cleaning surfaces with cloths, replace them to avoid saturation. Do not use cotton waste or colored cloths.

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Recommended Surface Profile
It is recommended a roughness profile between 15 and 25 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).

Evaluate the surface after blasting, observing revealed defects and adopt practices to minimize them, such as grinding or filling.

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.

If manual mechanical cleaning is not possible, alternatively perform commercial abrasive blasting, Sa 2 grade according to ISO 8501-1 visual standard (C Sa 2 and D Sa 2) or SSPC-SP 6/NACE No. 3, visual standard SSPC-VIS 1 (C SP 6, D SP 6).

Mechanically treat the surface until achieving at least SSPC-SP 11 grade, using SSPC-VIS 3 visual standard as guidance.

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 e 2 mm, ISO 8501-3).

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.
Mixing Ratio	By volume: 4 A x 1 B.
Dilution	Depending on the application method, dilute to a maximum of 5%.
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	3 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.
Induction Time	Wait 5 minutes before application.

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: 60 - 65 psi Tank pressure: 10 - 20 psi.
Airless Spray Gun	Airless: Use minimum pump 60:1 Fluid pressure: 2000 - 2500 psi Hose: 1/4" inner diameter Nozzle: 0.015" - 0.019".
Roller	Not recommended.
Brush	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. Use a brush 75 to 100 mm wide for larger surfaces and 25 to 38 mm for touch-ups.
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. Mix slowly, manually or mechanically, to obtain a uniform consistency before application. 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.

APPLICATION PERFORMANCE

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

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

Must not be applied on condensed surfaces.

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.

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.

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

When applying by brush or roller, two or more coats may be necessary to achieve a uniform layer and recommended film thickness.

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.

Epoxy-based products are known for their excellent anticorrosive properties and low resistance to sun exposure. When the applied film is exposed to weathering, over time it will lose gloss, a phenomenon known as chalking, which consequently alters its color. It is important to note that, despite this chalking, the film's anticorrosive protection is not compromised.

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.

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