

ETHYL SILICATE ZINC HS

PRODUCT DESCRIPTION

Two-component inorganic zinc ethyl silicate. Provides galvanic anticorrosive protection to carbon steel.

RECOMMENDED USE

Anticorrosive primer with high zinc content, for protection of metal structures, plates, bridges, containers, and port cranes. Widely used in the offshore and naval industry, as well as maritime platforms. Provides excellent anticorrosive protection to steel and resistance to temperatures up to 540°C on properly treated surfaces.

CERTIFICATIONS AND APPROVALS

Meets the composition and performance requirements of ISO 12944-5.

When supplied to comply with the ROHS Directive (Restriction of Certain Hazardous Substances), this product includes the letter R in its nomenclature description.

Complies with SSPC Paint 20 Composition and Performance Requirements Level 1.

PACKAGING

Component A 3.6L Package containing 2.88L

Component B 0.9L Package containing 0.72L

CHARACTERISTICS

Color	Gray.
Gloss	Matte
VOC content	433.02 g/l
Volume Solids	68 ± 2% (ISO 3233)
Shelf Life	6 months
Dry Film Thickness	50 µm - 75 µm
Dry Heat Resistance	Maximum temperature 540 °C. The product maintains its chemical properties up to a temperature of 540 °C, but from 150°C, color and gloss variations in the paint may occur.
Theoretical Coverage	9,07 m ² /l without dilution at a dry film thickness of 75 µm. Loss factors during application are not considered.
Specific Gravity	Min: 1.17 Max: 1.27 g/cm ³

DRYING

Drying

	10 °C	25 °C	35 °C
Touch	30 min	10 min	8 min
Manipulation	80 min	30 min	20 min
Final	90 min	1 hour	30 min

Recoat Drying

	10 °C	25 °C	35 °C
Minimum	9 hours	300 min	90 min
Maximum	Extended	Extended	Extended

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.

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.

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.

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.
Thinner	ZINC ETHYL SILICATE DILUENT
Alternative Thinners	5007 Diluent - As an alternative.
Dilution	Depending on the application method, dilute to a maximum of 25%.
Notes	Dilute according to recommendation. Only add the thinner after the A + B components are completely mixed. Excessive thinning of the paint may affect film formation, appearance, and make it difficult to achieve the specified thickness. 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	4 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.

APPLICATION METHODS

Conventional Spray Gun	Spray gun: JGA 5023-67 Devilbiss or equivalent Fluid nozzle: EX or FX Air cap: 704 Atomization pressure: 50 - 70 psi Tank pressure: 10 - 30 psi.
Airless Spray Gun	Airless: Use minimum pump 60:1 Fluid pressure: 1500 - 2500 psi Hose: 1/4" inner diameter



Nozzle: 0.015" - 0.021".

Cleaning of the equipments:

ZINC ETHYL SILICATE DILUENT

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

APPLICATION PERFORMANCE

Application of thicknesses above the recommended may result in coating film defects such as cracking, fissures, or fractures.

The material must be filtered before application and constantly agitated in the container during spraying.

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.

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.

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.

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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