



PRODUCT DATA

1312

Zinc-Rich Ethyl Silicate Primer

Description: 1312 is a two component, zinc-rich ethyl silicate primer formulated for use as a primer for galvanic (cathodic) protection of ferrous surfaces. The zinc pigment sacrificially oxidizes to protect iron in ferrous substrates.

Typical Uses: zinc-rich primer to protect ferrous surfaces, such as bridges, tanks, and structural steel. Zinc pigment provides cathodic protection and film undercutting resistance to corrosion. Performance similar to hot-dipped galvanizing.

Special Qualifications: n/a

Dry Temperature Limits: 750 deg.F

Surface Cleanliness: for atmospheric exposure abrasive blast clean to NACE No.3/SSPC-SP 6 Commercial Metal Blast Cleaning, for immersion service abrasive blast clean to a NACE No. 2/SSPC-SP 10 Near-White Metal Blast Cleaning. For salt contaminated surfaces best results are obtained by first pressure washing the surface using a commercially available chloride remover.

Profile Depth: average 1.5 to 2.0 mils (visual comparator), maximum 2.3 mils (Testex replica tape)

Profile Texture: sharp and angular (viewed under magnification)

Mixing Instructions: Stir liquid portion first using mechanical agitation (jiffy power mixer). Discard the desiccant bag from the zinc powder, gradually stir the zinc dust into the liquid component under constant agitation. Filter through a 50 mesh screen after mixing. Never add the liquid portion to the zinc dust component. Continuous agitation is required.

Application Equipment: 45:1 ratio pump with 0.017 (617) to 0.019 (619) inch diameter orifice for airless spray gun tip at a 2,400 psi recommended minimum fluid pressure at tip to obtain proper atomization. For whip lines greater than 50 feet, use 1/2 inch I.D. Flush all equipment with thinner to remove any moisture that may be present. An artist brush can be used for touchup of small repair areas less than 1 square foot.

Application Conditions:

- Noncontaminated profile (pretreat and blast contaminated surfaces)
- Dry, dust-free metal surface
- Metal temperature above 20 deg.F
- Metal temperature at least 5 deg. above the dew point
- Ambient temperature above 20 deg.F
- Humidity less than 95% but greater than 40%
- Material temperature above 20 deg.F

Safe Application Conditions: Consult MSDS for proper handling, cleanup, disposal, and use of personal protective equipment. Circulate sufficient air to maintain working environment below the PEL and LEL. Apply according to local, state, and federal (OSHA) regulations.

Finish: Flat Gloss

Color: gray/green

Volume Solids: 80 % by weight
77% (void content method) By volume
packaging density ratio of wet to dry

Zinc Content: 85% zinc in dry film

Zinc Type: ASTM D-520, Type III (99% zinc in powder component)

VOC: 3.3 lbs./gal. (3.99 g/l), (mixed)

Flash Point: 66 deg.F

Dry Film Thickness: 2 to 4 mils

Theoretical Coverage: 1232 sq.ft./
gal.@ 1 mil

Induction Time: none required

Pot Life Time: 8 hours @ 75 deg.F

Shelf Life Time: 1 year, if stored indoors
at 65 to 85 deg.F

Dry Time: @ 75 deg.F

Set to Touch 20 min.

Dry to Handle 2 to 4 hours

Recoat generally 5 to 18 hours,
depending on temperature and relative
humidity, although may be topcoated, when
dry film will pass a 50 MEK rub test without
removing any zinc.

Thinner: T-67

Clean Up Solvent: T-40 MEK

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