

**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENTAL SPECIFICATION 910
OZEU STRUCTURAL STEEL PAINT**

April 21, 1997

- 910.01 Description**
- 910.02 Materials**
- 910.03 Performance Requirements**
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910.01 Description. This specification covers the formulation and testing of a three coat structural steel paint system consisting of an organic zinc prime coat, an epoxy intermediate coat and a urethane finish coat (OZEU).

910.02 Materials.

Organic Zinc Prime Coat

This coating shall consist of a zinc dust filled, two or three component epoxy polyamide, and selected additives as required:

A. Physical Requirements	Minimum
1. Total Solids, % by weight of paint, ASTM 2369	70
2. Pigment, % by weight of total solids, ASTM D 2371	83
3. Total zinc dust, % by weight of pigment	93
4. Total zinc, % by weight, of total solids, By calculation	77
5. Total solids, % by volume, ASTM D2697	45
6. Color, greenish gray, approximating FS-595B-34159, Visual comparison	
7. Pot Life at 25° C (77° F) and 50% Relative Humidity (R.H.), hours	6
By observation of Ford B cup viscosity, pot life is deemed exceeded if the viscosity rose more than 30% or if gelled particles appear in the mix. A one liter (quart) container of mixed material is used.	
 B. Qualitative Requirements	
1. Mixing shall conform to Section 5.2, SSPC-Paint 20 using only a high shear (Jiffy) mixer.	

- 2. Storage life - Section 5.4, SSPC-Paint 20
- 3. Mudcracking - Section 5.7, SSPC-Paint 20

C. Material Quality Assurance

1. Hardener Component	Variance*
a. Nonvolatiles, % by weight	± 2
b. Density	± 0.02g/mL (± 0.2 lb. per gal.)
c. Viscosity	± 5 KU or ± 5 sec., Ford Cup
 2. Zinc/Resin Component	
a. Total Zinc metal, % by weight	± 2
b. Density	+/- 2%
c. Viscosity	Dependent on test
d. Nonvolatiles, % by weight	± 2

*Variance within the mean of the tests of the previously submitted sample for qualification.

Epoxy Intermediate Coat

This coating shall be a two-part product composed of a base component and a curing agent suitable for application over the epoxy-polyamide zinc rich primer.

The base component shall contain an epoxy resin together with color pigments, mineral fillers, gellant, leveling agent, and volatile solvents. The curing agent component shall contain a liquid polyamide resin and volatile solvent. The coating shall also meet the following:

- A. Physical Requirements
 - 1. Color: White, meeting or exceeding, FS-595B-37875 as per ASTM E 1347
 - 2. Components: Two, mixed prior to application
 - 3. Volume Solids, ASTM D 2697: 50.0% minimum
 - 4. Potlife: 6 hours, minimum @ 25° C (77° F)