

TiO₂ Additive

1. Cut raw Capone

2. Clean with NaOH
5% solution

3. Etched HCL
8% solution

4. Flux with NH₄Cl
30% solution

5. Dry Capone
With Hot Air

Prepared Capone

Coating material

Zinc bath

additive

AL
Ingot
0.15%

Zinc
Ingot

6. Zinc Bath

Reduce The
Grain Size

Increases
The Grain
Boundary

Distribution
Of Structural
Defects

Decrease
The
Corrosion
Rate

Changing The
Crystalline
Orientation

Development
Of Corrosion-
sensitive
Plates

Development
Of Brittle
Phases

Reduces The
Corrosion
Properties

MICRO
Scale
Result

Porosity
Hardness

OCP
Salt Spray
IES
Polarization

7. Galvanized
Capone
Analyzed

Microscopy
OM
SEM
FESEM

Roughness
Thickness

Nano
Scale
Result