

TECHNICAL DATA SHEET

METFIX ZN P – 758

(TRICATIONIC PHOSPHATE IMMERSION COATING)

Metfix ZN P – 758 is a tricationic zinc phosphate conversion coating for immersion/spray application on substrate such as steel, electrogalvanized steel, zinc alloy coated steel and aluminium.

SALIENT FEATURES:

- Provides uniform, non metallic polycrystalline zinc phosphate coating which provides excellent adhesion for subsequent painting system.
- Provides dense phosphate coating inherently resistance to alkali attack.
- Gives coating weight of 2-5.5 gm/sq.meter

BATH MAKE UP : (1000 Lts.)

- Fill the tank with water slightly below the operating level.
- Add 50 – 60 Kgs. of Metfix ZN P – 758.
- Add 2-2.5 Kgs of neutralizer powder.
- Bring the level to the operating level by adding water. before processing add 110-150 gm of accelerator.
- Heat the solution to 65°C.
- Start the process.

OPERATING CONDITION:

Concentration Metfix ZN P – 758	50-60 Kgs.
Neutralizer powder	2-2.5 Kgs.
Accelerator	110-150 gm
Temperature	60-70°C
Time	5-15 minutes

MAINTENANCE:

For optimum results and maximum solution life the Metfix ZN P – 758 solution and Accelerator should be maintained on the basis of regular analysis using the analytical procedure outlined under the heading “Control”.

PROCESS CYCLE & TIME:

- Degreasing 5 – 10 minutes
- Water rinse 15 – 30 seconds
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- Pickling / derusting 5 – 10 minutes
(HCl / H₂SO₄)
- Rinsing 15 – 30 seconds
- Rinsing 15 – 30 seconds
- Conditioning 1 - 3 minutes
- Phosphatising 5 – 10 minutes
- Rinsing 15 – 30 seconds
- Rinsing 15 – 30 seconds
- Sealing 1 – 3 minutes
- Drying 1 – 4 minutes

CONTROL:**Metfix ZN P – 758 CONCENTRATION:****Pointage : (Total Acid)**

- Pipette out 10 ml bath solution in a 500cc conical flask.
- Add about 25 – 50 ml of DM water.
- Add 4 – 5 drops of phenolphthalein Indicator and titrate with 0.1N NaOH till permanent pink colour.
- The no. of ml of 0.1N NaOH required for titration gives total acid points. (pointage).
- Maintain the pointage between 20 – 25. If the pointage is below the given strength, add 2 ltrs / 1000 ltrs for each point .

FREE ACID:

Pipette a 10 ml sample into a 200ml conical flask, add 2-3 drops of Bromophenol blue, then titrate with 0.1 N NaOH. The end point is indicated when yellow colour of the solution just turns to blue –violet. The number of ml of 0.1 N NaOH required for titration shows the free acid points.

Addition of 50 gm of Neutralizer powder per 1000 Lts. will reduce free acid by 0.1 pts

ACCELERATOR:

Fill the treating solution in the saccharometer and add 2-5 gms of sulfamic acid. Tilt the saccharometer and read the scale.

ACCELERATOR CONTENT:

- Pipette out 50 cc of bath solution into a conical flask, add 4 – 5 cc of 50 % Sulphuric acid , mix well , and titrate against 0.1 N potassium Permanganate till colour changes to pink, persuing for atleast 15 -18 seconds.
- Freshly prepared bath will have concentration 4.5 - 5.0 points (i.e. 4.5 c of 0.1 N potassium Permanganate) referred concentration range is 2 – 6 points.
Addition of 65-70gm of Accelerator powder will increase reading by 1 point.

EQUIPMENT:

Tanks and housing can be fabricated from mild steel plate, SS314L and SS316L.

If gas fired burners are used they should be made of mild steel or equivalent.

HANDLING AND SAFETY PRECAUTIONS:

Metfix ZN P – 758 is acidic in nature. Rubber gloves and aprons should be worn while handling. In case of contact with skin, flush with plenty of cold water.

WASTE DISPOSAL:

Solution of Metfix ZN P – 758 are acidic and contain zinc, manganese and nickel metal. Consult experts with regard to waste disposal regulations and process.

DISCLAIMER:

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