

Micron MP-100MM

MICRO ZINC PHOSPHATE TREATMENT MP-100MM is a MICRO CRYSTALLINE zinc phosphate compound. It is used for bonding paint AND providing corrosion inhibition to steel and mixed metals of steel, aluminum and zinc. It is used in immersion tanks or spray systems prior to powder coatings, e-coat and paints.

MP-100MM is an advanced technology product for use in mixed metal operations requiring premium preparation and quality. MEETS SPECS OF Federal Spec TTC-490 Type I, AND TOYOTA # HTH-7500 FOR FINE COATINGS.

MP-100MM Provides coating weights of 150-500 mg/ft² when used with TA-10 grain refiner pre-Rinse, or 500-700 mg/ft² without the TA-10 in an immersion process.

Features & Benefits

High resistance to sludging,
 (Operated on the zero iron side .2-1.0 mls). Use with Accelerator #40, nitrogen activator. Typical Coating Weights of 150 - 500 Mg/ft²,
 MICRO SMOOTH coatings, providing a FUNCTIONAL advantage.
 Meets various automotive, government and military specifications....
 (TTC-490E TYPE I COATING WEIGHTS EASILY CONTROLLED.)
 Can also be used for lubrication applications. The coatings prevent galling of metal and assists in deep drawing and extruding of metals

Physical Data

Specific gravity	1.42
Product Type	Liquid
PH	1
LBS/Gal	11.84
Foam, 0=Low 9=High	0
Shelf Life Years	10 Years
Freeze Information	Not Damaged by Freezing



Operating Conditions/Typical Processing

	<u>Spray Process</u>	<u>Immersion</u>
1) PRE-CLEAN,	HDS-1023.	LS-150
2) Rinse, (Maintain less the .5 points total alkalinity fresh rinse)		
3) Optional	Grain Refiner Toner TA-20 (TA-10 OPT FOR FE.)	
3) MP-100 Zinc,	14-20pts TA, Ratio 14-20	20-30pts TA, Ratio 10-14
	Acc Pts: 2.0-10	Acc pts.2.0-10
4) Rinse < 100 f., optional second rinse preferred.		
5) FINAL SEALER RINSE: NCS, .5%, PH 9+, s , 1,000 Mhos.		
TO PAINT AND COATING		

Packaging

Container Type	POLY
Net Units	630
Tare Wt.	25
Gross Wt.	655
DOT_NAME	UN 3264, Corrosive Liquid, Acidic, inorganic, N.O.S., (Fluorozirconic Acid),8, PG II
DOT Hazard	Corrosive

Use Parameters

Concentration Range	2-6% by volume
Temperature Range	120-170 F.
Time Range	1.5-4 minutes
Agitation	Spray or circulate

Waste Disposal

REMOVE METALS, TREAT FOR PH, ETC.

Holding Tank Materials of Construction:

ACID RESISTANT, STAINLESS OR POLY

Testing, Operating, & Trouble Shooting Data

New Tank Make-up:

Fill Tank With Water Leaving Enough Room For 3-4% By Volume Of Mp-100. (3-4 Gallons Per 100 Gal). Add 1/8-1/4 % Of Accelerator #40 Prior To Heating Bath. Process May Begin When Titrations And Operating Temperature Has Been Reached. Adjust Ratio To Operating Range With 10% Water Diluted Ph Adjuster #14 (sodium Hydroxide)
Note: The Addition Of 1 Quart (500 Mls) Per 100 Gallons Will Raise Ratio By: 1 Point

Titration Procedures:

Total Acid:(Range 14-20 Spray Or 20-30 Immersion)

- 1) Take A 10 MI Sample
- 2) Add 3-5 Drops Total Acid Indicator (phenol Indicator).
- 3) Titrate With 0.1 N Naoh (caustic Soda) (color Will Change From Clear To Pink)
- 4) Number Of Mls Used = Total Acid

To Raise Total Acid 6 Points : Add 1% (1 Gallon) Of Mp 100 Per 100 Of Bath)

Note: If Large Additions Are Made It May Require Adds Of Caustic To Adjust Ratio

Free Acid:(range Per The Ratio Target)

- 1) Take A 10 MI Sample
- 2) Add 5-10 Drops Of Bromophenol Blue
- 3) Titrate With 0.1 Naoh (caustic Soda) (color Will Change From Yellow To Blue)
- 4) Number Of Mls Used = Free Acid

Acid Ratio: (range 14-20 Spray Or 10-14 Immersion)

Maintain An Acid Ratio Of $Ta/fa = 14-20$

Adjust Ratio To Operating Range With 10% Water Diluted Ph Adjuster #14 (sodium Hydroxide)

Note: The Addition Of 1 Quart (500 Mls) Per 100 Gallons Will Raise Ratio By: 1 Point

Zero Iron: Zero Iron

Use White Iron Test Papers, Dip Paper Into Bath

If Paper Turns Red = Iron

If Paper Stays White = Zero Iron

Note: The Accelerator Test Procedure Is The Same Test For Both Accelerator And Iron. Make Sure The Bath Is On The Zero Iron Side To

Determine The Amount Of Accelerator In The Bath, Not Iron.



Accelerator Test:

Accelerator Points Using .042n Permanganate: Range = 2.0-15 (1/4% Add = 9 Points)

Accelerator Points Using .189n Permanganate: Range = 0.4-2.0 (1/4% Add = 2 Points)

Bong Gas Type Bulb Test = Same As .042 Permanganate = 2.0-15

- 1) Take A 25 MI Sample
- 2) Add 5-10 Mls Of 50% Sulfuric Acid
- 3) Titrate With 0.042n/.189n Potassium Permanganate (obtain A Permanent Pink Endpoint)
- 4) Number Of Mls Used = Accelerator Point

Other Information

It is important that the OSHA DATA, "Material Safety Data Sheet" be carefully read and reviewed with the users of this product. OSHA data is required to be posted in the work area by law.

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Our People. Your Problem Solvers.

For more information on this process,
please call us at 203.756.5521 or email: techservice@hubbardhall.com

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