

Bond Guard 1347-MX

Lo-Foam Detergent & Iron Phosphate

Bond Guard 1347-MX is a detergent, 3-5 stage process iron phosphate conversion coating for all metals of steel, aluminum and zinc-galvanize. recognized as a hybrid conversion coating product.

Bond Guard 1347-MX provides superior bonding and corrosion resistance. offering coating weights up to 175 mg/ft².

Bond Guard 1347-MX is a premium product which is internally accelerated with a highly stabilized acid balance to provide maximum quality. Also used as a lubricant base for extrusions and bonding of adhesives.

Note: For added wetting agent detergency see Surfcon 100, for both detergency and defoaming see Surfcon 61.

Features & Benefits

- High solids liquid which provides ease of feeding.
- Balanced acid system for greater process control.
- Superior quality over competitive 3 stage processes.
- Extended coating weight range over standard 3 stage systems or detergent type products. Excellent salt spray, humidity and water immersion resistance.
- Significantly improves corrosion resistance and bonding performance.
- Satisfies requirements of "Tide" test as defined by appliance industry.
- Resistant to hard water. Meets military spec TT-C-490, Type II.

Physical Data

pH	2.0
Product Type	Liquid
Spec. Gravity	1.14
lbs./gal.	9.51
Foam, 0 = Low, 9 = High	0
Shelf-Life Years	10 years
Freeze Information	Not damaged by freezing.

Typical Processing

1. Bond Guard 1347-MX Detergent Iron Phosphate, 140 F., 90 seconds, 1.5-4%. pH @ 4.5-5.5 (use meter).
2. Rinse.
3. Treated rinse, non-chrome toner sealer NCS-3, .2%, 125 F. 30 sec.
4. Optional D > I > water rinse.
5. Air blow off (Dry ovens should not exceed 250 F. for iron phosphates) to coating line

Note: #1347 Can be used in 5 stage systems also. Simply Use Bond Guard 1347-MX in Stages #1 & #3

Packaging

Container Type	Poly
Net Units	523
Tare Wt.	25 lb.
Gross Wt.	595
DOT_Name	UN 1805, Phosphoric Acid Solution, 8, PG III
DOT Hazard	Corrosive
Tarriff ID	2835.22.00

Use Parameters

Concentration Range	2-4%
Temperature Range	100 – 150 F.
Time Range	30-120 seconds
Agitation	As available.

Waste Disposal

Neutralize.

Holding Tank Materials of Construction

Acid resistant, stainless, or poly.

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.

Testing, Operating & Trouble Shooting Data

- 1) Adjust Ph To Normal Operating **Range Target (4.5 - 5.5)**
To Lower Ph Use: #1347 Or #80 Phos Acid
To Raise Ph Use: Ph Adjuster #14 Or Caustic Soda
- 2) Take A 10 MI Sample Of Solution To Be Tested And Place Into A Flask.
- 3) Add 3-5 Drops Of Phenol Indicator (indicator #1)
- 4) Titrate With 0.1n Naoh (test Solution #10) Until The Color Changes To A Permanent Pink.
- 5) The Number Of Mls Required To Achieve The Color Change Multiplied By A Factor Of 0.60 = % By Volume

Target Range = 2-4% By Volume Or 3-7 Mls Of Titration.

% By Volume Dropper Test:

Take A 10 MI Sample, Add Phenol Indicator
Add Drop By Drop Of 1.0n Caustic Until The Color Changes To Pink.
The # Of Drops Required Divided By 5 = % By Volume.

Use & Operating Suggestions: 10-12 Ros:

- A) Process Solutions Must Be Maintained Fresh, Up To Strength And Free Of Foreign Contaminants.
 - B) Remove Floating Oils And Contaminants, Filter If Practical. Maintain Clean Pre-rinse If Applicable.
 - C) Maintain Warm Air Dryers.
 - D) Test For Contaminants: Particulate: Mud, Sand, Metal Fines, Cottom, Floor Dry, Etc
- A) Extract A Representative 500 MI Sample In A Clean Beaker.
Cover The Beaker And Allow Particulate To Settle.
Observe And Log Quality Of Settled Matter. Record This.
 - B) Filter 500 Mls Thru 1-5 Micron Filter Paper And Record Level Of Particulate Solids.
(Pour Thru Filter Paper 3-4 Times)
 - C) Test For Floating Oils: Transfer Representative Sample Into 100 MI Calibrated Column.
Allow Oils To Float To The Surface Over A 12 - 24 Hour Period. Record Findings.
(over .5% Is Considered Excessive.



Product Bulletin

Product Name: Bond Guard 1347-MX
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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

Hubbard-Hall holds certifications for **ISO 9001:2015**, Responsible Distribution, as accredited by the **ACD** (Alliance for Chemical Distributors) and as a **Women-Owned Small Business**, as well as maintaining an association with **Omni-Chem**¹³⁶.