

METRIT

METAL PRETREATMENT CHEMICALS & SPECIALITY CHEMICALS

An ISO 9001 : 2008 Company

Phosphating Sequence

Chromatising Sequence

Paint Strippers

Emulsified Degreasers

Galva-Grip (For Galvanized Sheet)

Brass - Copper Cleaner

Pipe and Tube Cleaner

SPECIALITY CHEMICALS DIVISION



**METRIT
CHEMICALS PVT. LTD.**

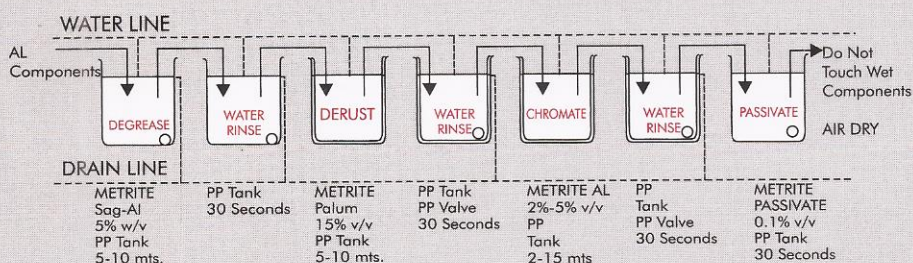
METAL TREATMENT CHEMICALS & PLANTS • RUST PREVENTIVES • PAINT REMOVERS

ALUMINIUM TREATMENT

CHROMATISING CHEMICALS

Chromatising chemicals are used for pretreatment of aluminum before painting / powder coating. Chromatising process imparts amorphous coating on aluminum, which serves as an excellent base for paints.

PROCESS SEQUENCE : (COLD PROCESS)



PRODUCTS : Metrite GY₃ :
Chromium Oxide
coating, golden yellow
in colour.

Metrite AL -71 (G)
Chromium Phosphate
coating, green
in colour.

DEGREASING CHEMICALS : (NON FERROUS METALS)

• ALKALINE DEGREASER

PRODUCT	RECOMMENDED USE	USE PARAMETERS
METRITE SAG-AL/SAG-SH	Sequesters; low foaming; Non-silicate base; Quickly removes oils; for aluminum.	5% w/v at ambient temp.

• ACIDIC DEGREASER / DEOXIDISER (NON FERROUS METALS & ALLOYS)

PRODUCT	RECOMMENDED USE	USE PARAMETERS
METRITE PALUMCLEANSER OR MCL-6-AL	An aqueous acidic mixture very effective degreaser, etcher & desmutter for aluminum.	10%-15% v/v at ambient temp.

CHROMATISING CHEMICAL : (FOR ALUMINIUM & ZINC)

PRODUCT	RECOMMENDED USE	USE PARAMETERS
METRITE AL-71 (G)	Chromium Phosphate Coating of Greenish colour for aluminum section & Fixtures	2%-5% v/v at ambient temp.
METRITE GY ₃	Chromium oxide Coating of yellowish colour for aluminum sections & aluminum alloy	2%-5% v/v at ambient temp.

USES : Ideal for Fan blades, Water filters, Fluorescent Fixtures of aluminum. Aluminum sections and other aluminum components before painting / powder coating.

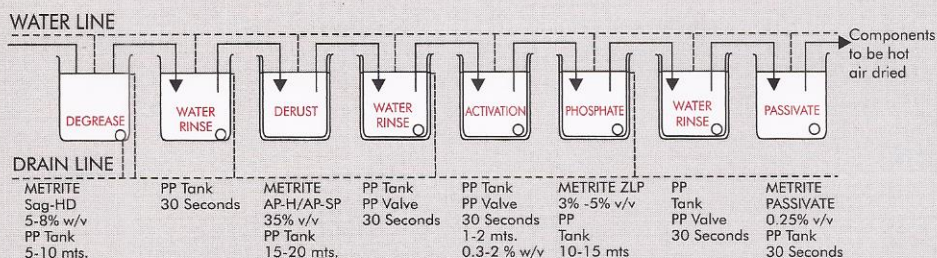
MILD STEEL TREATMENTS

PHOSPHATE CONVERSION COATINGS

TYPICAL PHOSPHATE TREATMENT SEQUENCE (IMMERSION)

(Before Powder Coating / Painting)

PROCESS SEQUENCE : (COLD PROCESS)



STAGE 1: DEGREASE/SURFACE CLEANING (FERROUS METALS & ALLOYS)

ALKALINE DEGREASER (IMMERSION TYPE)

PRODUCT	RECOMMENDED USE	USE PARAMETERS
METRITE SAG	Sequesters; low foaming; Quickly removes greases, oils, Carbonaceous deposits.	5% w/v at 70° C to 80°C temp. 8%-10% w/v at low temp 40°C - 50°C
METRITE SAG-HD	Heavy duty; sequesters; Quickly removes grease, oils, Carbonaceous deposits, Engine varnish, Drawing compounds, paints, rust preventives.	5% w/v at 80° C temp 8%-10% w/v at ambient temp.

* See acidic degreaser

STAGE 3: DERUSTERS (FERROUS METALS & ALLOYS)

PRODUCT	RECOMMENDED USE	USE PARAMETERS
METRITE AP-SP/AP-S/AP	Inhibited; removes rust; light oxides, smut, other soils; ideal for mass finishing	25% to 40% v/v at room temp
METRITE AH/AH-SP	Inhibited; low foaming; removes heavy rust, mill scale, other soils.	25% to 33% v/v at room temp
METRITE AP-H	Inhibited; low foaming; removes rust, scale uniformly etches base metal.	25% to 40% v/v at room temp

STAGE 5: ACTIVATOR (OPTIONAL STAGE PRIOR TO PHOSPHATING)

PRODUCT	RECOMMENDED USE	USE PARAMETERS
METRITE DSM	Acid based product for development of compact crystal structure.	1% to 2% w/v of bath
METRITE DSM-SP	Titanium based product for development of compact crystal structure. Reduces coating weight & Phosphating time.	0.3% to 0.5% w/v of bath

STAGE 6: PHOSPHATING CHEMICALS (PAINT BASE COATINGS)

PRODUCT	RECOMMENDED USE	USE PARAMETERS
METRITE ZLP-PB	Zinc phosphate; calcium modified; economical, compact crystal structure; confirming to class "B" & "C" IS: 3618	5% v/v at 70° C for 10 minutes.
METRITE ZLP-COLD-LP	Zinc phosphate; compact crystal structure; economical, confirming to class "B" & class "C" IS 3618	4%-6% v/v at ambient temp for 15-20 minutes.
METRITE ZN/IRON PHOSCOAT - FE	Zinc/Iron phosphate; compact crystal structure, low coating weight, economical confirming to class "C" & "D" IS: 3618	5% v/v at ambient temp for 10 minutes
METRITE ZLP-COLD	Zinc phosphate; chlorate accelerated; high corrosion resistance, compact crystal coating, low coating weight confirming to class "C" IS: 3618	5% v/v at ambient temp for 6-10 minutes

*Oxy Salt (L) or (S): This is added to Phosphate bath.

STAGE 8: PASSIVATION (SEALING)

PRODUCT	RECOMMENDED USE	USE PARAMETERS
METRITE PASSIVATE	LIQUID PASSIVATION chemical (Chrome BASED)	0.1% v/v at 70°C
METRITE AH -50	NON CHROME LIQUID PASSIVATION chemical	0.1% v/v at 70° C

25% v/v= 25 liter chemical + 75 Liter water 5% w/v=5 kg powder in 100 liter water

**STAGE 6 (A) : MEDIUM / HEAVY PHOSPHATING CHEMICALS
(CORROSION RESISTANCE)
(FOR AUTO PARTS, HARDWARE, WIRE AND TUBES)**

PRODUCT	RECOMMENDED USE	USE PARAMETERS
METRITE ZHP	Heavy Zinc phosphate coating for nut, bolts auto parts: for excellent corrosion resistance, coating to be sealed with dewatering oils, Conforming to IS 3618 Class A.	5% v/v at 75°-80°C 5-15 minutes.
METRITE MHP	Heavy Manganese phosphate coating for rotating parts like gears, shafts, roating wheels, etc. This phosphate coating has oil retaining properties; confirms IS 3618 class A.	6% v/v at 90°-95°C 5-15 minutes.
METRITE ZLP-PB 110/210	Used for phosphating of tubes & Wires which helps to retain lubricating products and facilitates drawing.	5% v/v at 70°C 5-15 minutes

SPECIALITY CHEMICALS :

PRODUCT	RECOMMENDED USE	USE PARAMETERS
ACIDIC DEGREASER	Metrite 123-SP-CCT effectively removes oils and mild rust from MS components at Room Temperature. Ideal for electroplaters replaces alkaline degreasers.	10% to 20% v/v in water
EMUSIFIED DEGRASER	Metrite DGL - SP Removes toughest grease deposits ideal for replacement of alkaline degreasers.	15%-25% v/v cold, 10-20 minutes
INHIBITOR	For Hydrochloric Acid & Sulfuric Acid Selective removal pf rust, scale without attacking base metal.	0.5% v/w of pure acid
GALVA GRIP METRIT - GG	Phosphating of GI sheets, mainly for air conditioner cabinets	5-10% v/v Immersion cold, 5-10 minutes
BRASS-COPPER CLEANER	Cleaning & Brightening of Brass, Cooper & & other bimetallic Components	25-33% v/v Immersion cold, 10-20 minutes
2 In 1 MCL -5	This chemical MCL -5 removes grease and rust in single stage.	20% - 30 % v/v, cold 15-20 minutes
PAINT STRIPPERS (PS)	Solvent based paint removal, removes powder coatings within 3 to 10 minutes	100% in specially designed container
BLACKENING SALTS (AB)	Oxidised blackening for MS articles, jet black colour.	50% w/v in water

3 IN 1 CHEMICALS ARE MUST BEFORE PAINTING

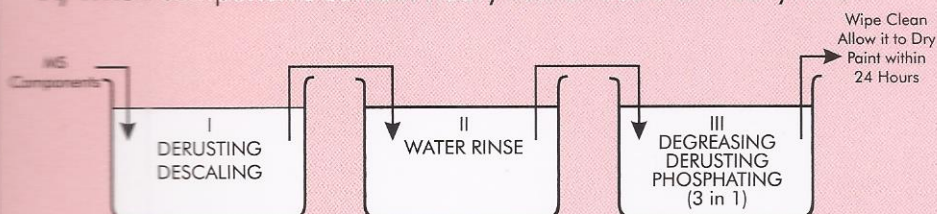
Metric offers large range of 3 in 1 chemicals (Simultaneous cleaning, pickling & Phosphate coating). Whenever seven stage phosphate coating is not feasible, these chemicals can be effectively used for single/three stage for phosphate coating of components.

These process gives coating of iron phosphate of weight 40 to 100 mgm./sq.ft. Due to low coating weight corrosion resistance is low & painting must be carried out immediately. Immersion application is always preferred then brushing application for better & faster results.

Advantage of 3 in 1 chemicals are Easy handling, less space requirement, No power requirement and lower cost of treatment.

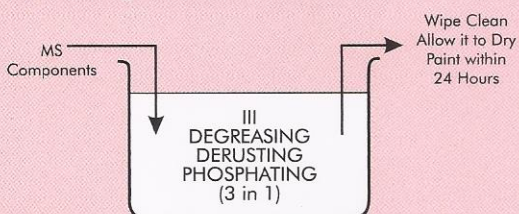
3 STAGE PRETREATMENT

A) When components contain heavy rust or Scale or Heavy Oils



SINGLE STAGE PRETREATMENT

B) When components contain medium grease & mild rust.



Tank material : M.S. Tank lined with FRP or. For choice of suitable chemicals, please call on our technical service department.

3 IN 1 CHEMICAL (IRON PHOSPHATE COMPLIES IS 3618 CLASS-D)

PRODUCT	RECOMMENDED USE	USE PARAMETERS
METRITE 113	For medium grease and medium rust; mainly for control panels, fluorescent fitting etc.	Immersion or Brush 25% to 50% v/v COLD
METRITE 123 /123 SP	For heavy grease and light rust; Mainly for steel furniture slotted angles, drums, buckets, etc.	Immersion or Brush 25% to 50% v/v COLD.
METRITE 223 SP / MCL 6	For more rust & light grease; Mainly for Cast Iron or forged components, treatment before powder coating	Immersion or Brush 25 % to 50% v/v COLD
METRITE 443 SP	For hard grease and light rust; mainly for pipes engines, other heavily greased articles.	Immersion or Brush 25% to 50% v/v COLD

Caution: All chemicals contains acid/alkalis. Use with rubber hand gloves & eye shield.

GI SHEET PRETREATMENT

METRITE - GG

Metrite - GG is a chemical for pretreatment of galvanized sheets, zinc coated steels & zinc die casting before liquid painting or powder coating.

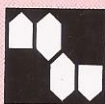
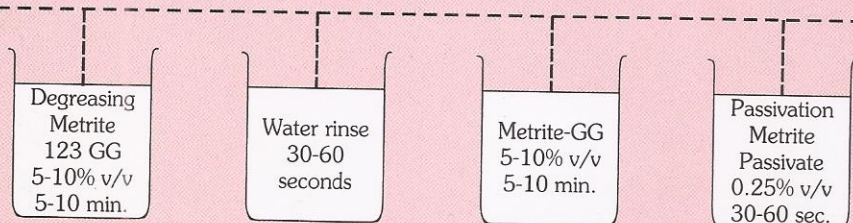
It produces light grey colour phosphate conversion coating of nickel and zinc in 2-3 minutes at room temperature which give excellent bonding for paints, powders or any other organic coating and is ideal for airconditioner cabinets, computer cabinets, control panels, refrigerators made from GI sheets.

PERFORMANCE DATA

Conversion Coating	Paint Adhesion	Salt Spray Resistance	Humidity Resistance
Phosphate with Metrite - GG	Excellent	Excellent	Excellent

Metrite - GG is used in a four stage process sequence as follows:

GI sheet pretreatment before powder coating or painting.



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CHEMICALS PVT. LTD.**

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