



Durapass 712

Description

Durapass 712 is a specifically formulated chrome free liquid blended product based in zirconium. It is used where strict environmental condition does not allow the use of chromium based products for the passivation of metals.

Features

Durapass 712 is an environmental friendly product producing thin, uniform and transparent chromium free passivation at low concentration and temperature on metals.

Applications

- **Durapass 712** is formulated product to be used for immersion and spray systems for most of the steel iron.
- **Durapass 712** forms colorless fine passivated coating on work piece after phosphating of steel to enhance anticorrosion protection and eliminate salt water contamination on the surface.

Physical & Chemical Properties

Appearance	Liquid.
Color	Colorless to yellowish.
pH (1%) at 25°C	3.4 ± 0.3
Sp. gr at 25°C	1.09 ± 0.03
Total Acid point (1%)	2.5 ± 0.1
Miscibility in water	Miscible.

Equipments

Tank can be fabricated from hard PVC or stainless steel or fluoride resistant plastic. All other equipments in contact could be of SS316 (L).

Process Sequences

- Phosphating with **Duraphos** products system or galvanizing process.
- DI Water Rinse
- Passivation with **Durapass 712**.
- Drying

Operating Parameters

Concentration (%v/v)	3 to 5
Pointage	7 to 13
Temperature (°C)	25 to 40
Time (min)	1 to 3
Nozzle pressure (Bar) (in spray)	0.5 to 1.0
pH	4 to 5

Initial preparation:

Add 30 to 50 liters of **Durapass 712** per 1000 liter of operating volume.

Precautions

D.I water should be used to prepare the bath with max conductivity 50 µS.

Reagents & Equipments

- 0.1 N Sodium Hydroxide Solution.
- Phenolphthalein Indicator.
- Conical flask 100 ml.
- Glass Burette 50 ml.
- 10 ml Pipette.



Analysis “Total Acid Point, TAP”

- Take 10 ml of **Durapass 712** working solution in a conical flask.
- Add 50 ml of distilled water
- Add 5 to 6 drops of phenolphthalein indicator
- Titrate it against 0.1 N sodium hydroxide solution.
- End point from colorless to pink.
- Milliliters of sodium hydroxide consumed give TAP
- TAP should be maintained between 7 to 13 points.

Replenishment

- Add 250 ml of **Durapass 712** per 1000 liter of working solution to increase the total acidity by 1.0 point
- Bath is sensitive to iron contaminations; maximum iron should not exceed 10 ppm.
- pH of bath should be kept between 3.2 to 4.2 for optimum passivated layer.

Storage Information

Storage & Handling

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not expose to direct sun. Stable nonflammable product. Avoid store near alkaline, alcoholic, reducing materials. Store in temperature not above 40°C.

Packaging Type

HDPE containers, outer sealed with ventilated cap.

Shelf Life

One year from date of production if stored in normal condition.

Standard Packing

Durapass 712 is available in 25 Kg HDPE cans,

Note: This information is based on our current level of knowledge is given in good faith but it is not intended to guarantee any particular properties. The users must satisfy them selves that there are no circumstances requiring additional information or precautions or the verification of details given herein. Revised on 31/Dec.2019 (ASRN).