

Durapass 744

Description

Durapass 744 is a liquid blended product formulated with chromium (III) salts and other additives suitable for post treatment of iron, steel, zinc.

Features

- **Durapass 744** passivation gives temporary corrosion protection to sensitive substrates after to phosphate and galvanizing.
- **Durapass 744** is suitable for immersion and spray systems and provides extra resistance against corrosion. Improves adhesion and minimizes under film blistering of final finish.
- **Durapass 744** is most suitable product for post treatment after iron phosphating, zinc phosphating for substrates like iron, steel, galvanized steel.
- **Durapass 744** is used after zinc plating and can provide corrosion resistance to alloy surface with desirable shade from yellow to blue.

Applications

Durapass 744 can be used after zinc plating, phosphating and galvanizing process.

Physical Properties

Appearance	Liquid
Color	Black green
pH (1%)	2.5±0.2
Sp.gr	1.32±0.04
Total Acid point (1%)	2.4±0.2 (0.1N NaOH)
Miscibility in water	Miscible at all ratios

Equipments

Operating tank and all the equipment in contact should be made from Stainless steel.

Operating Parameters

	Zinc	Phosphate,
Concentration(ml/l)	Plating	galvanizing
	150 to 250	1.0 to 3.0
Total Acid points	60 to 100	4.0 to 12.0
pH	1.80 to 2.0	2.0 to 3.0
Temperature (°C)	25 – 50	Ambient
Time (Sec)	30 – 90	30 – 90

Process Sequence

- Cleaning with **Duraclean** products
- Water rinse – twice
- Phosphating with **Duraphos** products/ Zinc plating
- Water rinse – twice
- Passivation with **Durapass 744**
- Drying

Initial Preparation

- Add 150 to 250 lit of **Durapass 744** per 1000 lit of operating volume for zinc plating process.
- Add 1 to 3 lit of **Durapass 744** per 1000 lit of operating volume for phosphating and galvanizing.



Precautions

- It's desirable to maintain the bath with D.I water to avoid salt residue.
- Titration point should be checked regularly.
- Higher Iron content in the working bath would lead to the color change, and then reduce the corrosion resistance. Bath should be treated to remove Iron content.
- The maximum iron content equal 10 ppm.

Reagents & Equipments

- 0.01 N Sodium hydroxide.
- Phenolphthalein.
- Erlenmeyer flask 300 ml.
- Burette 50 ml.
- 10 ml Pipette.

Analysis "Total Acid Point"

- Take 10 ml solution from **Durapass 744** preparation bath in a flask.
- Add 5 to 10 drops of phenolphthalein indicator.
- Titrate against 0.01N sodium hydroxide solution.
- End point color changes to red.

Total Acid point for zinc plating = ml of NaOH X 10

Total Acid point for phosphate, galv.= ml of NaOH

Replenishment

Add 2.5 lit of **Durapass 744** per 1000 liter of working solution to increase the total acid points by one.

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 ignition, strong oxidizing and reducing agents.

Store in temperature not above 35°C.

Shelf Life

Two years from date of production if stored in normal condition

Packaging Type

HDPE containers , outer sealed with ventilated cap

Packing

Durapass 744 is available in 35 kg HDPE can

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 themselves that there are no circumstances requiring additional information or precautions or the verification of details given herein. Revised on 31/Dec.2019 (ASRN)