

Condorcoat EC960

Physical-Chemical Properties

Physical State	: brown liquid
pH of the product	: 2
Composition	: esafluotitanic acid, silica and inhibitors based passivating solution

A- Introduction

CONDORCOAT EC 960 is a liquid chromium free product designed to provide excellent adhesion and corrosion protection properties in multi-metal applications.

In continuous coil application, the wet film is dried on the metal surface, without additional rinsing, prior to painting. Only fresh solution is used, there is no replenishment requirement, and the coating quality is consistently maintained.

B- Bath make up

The CONDORCOAT EC 960 concentrate should always be thoroughly mixed in its original container prior to use, using acid resistant equipment.

For each 100 gallons of bath, add 25 to 100 gallons of CONDORCOAT EC 960 with mixing. Use deionized water for all bath make up.

Control Points (For Normal Operating Conditions):

Condorcoat EC960	concentration	da 25% a 100%
Condorcoat EC960	titration	da 6.0 ml a 21.0 ml
Premix Temperature		ambiente

NOTE: See Section F for operational recommendations for the CONDORCOAT EC 960 bath.

C- Process sequence

Operation No. 1 – Clean	See Section E
Operation No. 2 – Rinse	
Operation No. 3 – Squeegee	
Operation No. 4 - Coat with EC 960	
Operation No. 5 - Forced Hot-Air Drying	See Section G

D- Maintenance of bath

The Condorcoat EC960 coating chemical bath is normally applied as fresh solution requiring no replenishment. The concentration of the solution may be determined if desired by use of the following titration method:

1) Coating Chemical Titration

- a) Transfer 10 ml. of the Condorcoat EC960 bath into an Erlenmeyer flask. Dilute to approximately 100 ml with deionized water.
- b) Add six to eight drops of Indicator Solution 10 (Brom Phenol Blue).
- c) Fill the burette to the zero mark with Titrating Solution 11 (0.1N Sodium Hydroxide).
- d) While swirling the flask, add Titrating Solution 11 slowly until a light blue color develops. Continue to add Titrating Solution 11 until a slight reddish purple color develops from the pale blue color.
- e) Record the number of milliliters of Titrating Solution 11 needed as the Condorcoat EC960. Titration.

E- Surface preparation

Most work can be cleaned using a suitable degreaser. If the work is heavily soiled and additional cleaning power is needed, a detergent cleaner additive may be added to the bath.

The work, after cleaning, should be thoroughly rinsed with warm water. This rinse should be continuously overflowed to avoid contamination. Our technical representative will recommend the proper type of cleaner for each processing line.

F- Operational recommendations

- 1) The initial make-up concentration (See Section B-1) is normal for most lines. However, where there are variations in metal surfaces or in line conditions, our technical representative may suggest a deviation from this concentration.
- 2) It is recommended that with reverse roll coat application, the applicator roll speed be maintained between 100% and 125% of the strip speed. Heavier film thickness may be obtained by increasing the reverse roll speed.
- 3) The following precautions should be observed during the operation of the Condorcoat EC960 process:
 - a) Adequate ventilation should be provided for the processing area.
 - b) Operators should be equipped with rubber gloves and aprons. When handling the concentrated chemicals, operators should also be equipped with face shields.
 - c) Any Condorcoat EC960 concentrate or bath should be immediately flushed from the skin with water.
- 4) Condorcoat EC960 should not be permitted to freeze. Condorcoat EC960 C should be stored at temperatures above 7°C.

G- Drying

It is essential that the metal strip leaving the chemical applicator be dried as soon as possible by any means that does not contaminate the surface with fumes, oil or partially burnt gases. The metal temperature of the strip leaving the drying section should be at a minimum of 68°C. A warm air flow or the use of infra-red or gas-fired heating panels is the preferred method of drying. Any airflow necessary to aid drying should be limited to a maximum velocity of 90 m/min.

H- Equipments notes

The strip is processed in conventional power-spray processing equipment for all stages except the EC960 stage. Details of the construction of the chemical roll coater may be obtained from our technicians. All other stages may be constructed of mild steel.

