COLUMBIA® CHEMICAL
Simplifying Surface Finishing®

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COLSTRIP ZN 20

TECHNICAL DATA
12-17-2020

COLSTRIP ZN 20

ALKALINE STRIP SYSTEM

COLSTRIP ZN 20	is an alkaline strip system formulated for the removal of zinc from steel parts that have been galvanized or zinc plated.
COLSTRIP ZN 20	can be used for stripping rack tips also.
COLSTRIP ZN 20	does not corrode steel tanks or etch steel substrate.
COLSTRIP ZN 20	efficiently strips zinc from steel, copper, or stainless steel and operates over a wide temperature range.
COLSTRIP ZN 20	significantly reduces iron in waste treatment sludge and eliminates smut formation.
COLSTRIP ZN 20	is more economical than conventional stripping processes.

OPERATING PARAMETERS

COLSTRIP ZN 20	2 - 4% by vol
Caustic Soda	12 - 24 oz/gal (90 - 180 g/L)
Temperature	Ambient to 190º F
Immersion Time	1 - 20 minutes

SOLUTION MAKEUP

1. Add clean warm water to 80% of the working volume.
2. Slowly add desired amount of caustic soda as heat will be generated.
3. Add 3% by volume of COLSTRIP ZN 20.
4. Bring the volume to the final working level with clean warm water.
5. Heat to desired temperature.

EQUIPMENT

Tank: A regular steel tank should be used. If a PVC, Koroseal or stainless-steel tank is used, steel cathode plates must be added to galvanically dissolve the zinc. Contact your Columbia Chemical Representative for further details.

Heating: Steel steam coils or steel electric immersion heaters may be used.

Ventilation: Recommended, but not necessary.

NOTE: An insulation block between the tank and the rack or barrel should **not** be used. This would prevent the galvanic action needed to help strip the zinc.

MAINTENANCE ADDITIONS

Caustic: By analysis

COLSTRIP ZN 20: Drag-out based on caustic analysis

STRIPPING TIME versus TEMPERATURE

Zinc Thickness in inches	90º F	130º F	160º F	180º F
.002	120 sec	75 sec	60 sec	45 sec
.003	180 sec	115 sec	90 sec	75 sec
.005	300 sec	190 sec	150 sec	110 sec

NOTE: These figures are based on a new makeup without large levels of zinc dissolved in solution. The greater the zinc contamination the slower the stripping speed.

TYPICAL CYCLE

1. STRIP THE REWORK PARTS IN COLSTRIP ZN 20
2. SOAK CLEAN
3. ELECTRO-CLEAN
4. RINSE
5. ACID
6. RINSE
7. ZINC PLATE

ALTERNATE CYCLE:

1. STRIP THE REWORK PARTS IN COLSTRIP ZN 20
2. DRY
3. REWORK STRIPPED PARTS AT LATER DATE
4. RINSE
5. ACID
6. RINSE
7. ZINC PLATE

ANALYTICAL PROCEDURE

DETERMINATION OF CAUSTIC SODA

REAGENTS: 0.1% indigo carmine
0.94 N standard sulfuric acid

PROCEDURE:

1. Pipette a 5 mL sample into a 125 mL Erlenmeyer flask.
2. Add 5 drops 0.1% indigo carmine
3. Titrate with 0.94 N standard sulfuric acid until the color changes to blue.

CALCULATION: mLs of sulfuric acid = free caustic in oz/gal

HANDLING & STORAGE

Columbia Chemical recommends referring to the specific product Safety Data Sheets for safety, handling, and storage precautions.

NON-WARRANTY

The data contained in this bulletin is believed by Columbia Chemical Corp. to be accurate, true, and complete. Since, however, final methods of use of this product are in the hands of the customer and beyond our control, we cannot guarantee that the customer will obtain the results described in this bulletin, nor can we assume responsibility of the use of this product by the customer in any process which may infringe the patents of third parties.