

ZACLON LLC

ZACLON W SOLUTION FLUX

Flux for Continuous Galvanizing Operations

Zaclon W is the high purity solution flux used by large and small continuous sheet galvanizing lines all over the world. This 2.5 weight ratio zinc ammonium chloride flux provides the fast releases needed for high speed operations, while providing all of the necessary oxide removal, oxidation protection, and thermal stability desired in a preflux.

The typical "cold line" hot dip galvanizing operation consists of several surface preparation segments, including hot alkaline degreasing, water rinse, one or two hydrochloric acid pickling stages, and then more rinsing. A hot preflux step is the last chemical step before the kettle, and this flux layer is often dried in some sort of furnace before entering the zinc alloy. The temperature of the zinc alloy is between 840 °F and 860 °F.

Zaclon W flux is provided in solution form at about 43 °Bé. (There is also a dry crystal form, Zaclon WD, available for some locations.) In use, the typical concentrations range from 12 to 20 °Bé, with heavier gauges of steel, or incompletely cleaned steel, requiring the higher concentrations for the highest quality zinc alloy coating.

Zaclon W preflux is normally heated to about 180 °F in the preflux tank. Zaclon W contains proprietary additives which give a thin, even layer of flux on the steel sheet, making the drying of the flux layer easier; these additives also minimize the foam in the preflux tank. The flux layer is then dried in a furnace; Zaclon W can tolerate steel surface temperatures up to 400 °F readily, and temperatures up to 500 °F are possible for short times. Due to the excellent release characteristics of this flux, line speeds of 400 feet per minute or more are achievable with Zaclon W preflux.

A higher temperature version, Zaclon W-HT, is also available, which can tolerate surface temperatures up to 600 °F; this can increase production rates, especially on heavier gauges.

Zaclon LLCorporated is the world's largest producer of zinc ammonium chloride fluxes for galvanizing, with products for after-fabrication, sheet, wire, pipe, and tube galvanizing. Custom manufacture of fluxes for various applications is also available. For more information on this or other Zaclon products, please contact us at Zaclon Customer Service at 1-800-356-7327, or visit us on the Web at www.zaclon.com.