

CUPRODINE®

GRANODRAW®

electroless copper coating chemical

Cuprodine 9

Powdered, immersion, Loopro or flowcoat surface treatment used in dilute sulfuric acid to produce an adherent, bright, metallic copper coating on steel surfaces prior to drawing operations. Operates between 100° to 150°F.

Cuprodine 15

Produces long life copper bath able to tolerate very high levels of iron. Operates between 110° to 125°F and has the same characteristics and application processes as Cuprodine 9.

Cuprodine SN Series

Powdered, immersion, metallic tin copper coating chemicals for carbon steel used in dilute sulfuric acid to form a consistent and adherent straw or "liquor finish" on steel surfaces prior to drawing operations. Operates between 110° to 120°F.

GRANOLUBE®

lubricants for cold forming

Granolube 15

Powdered chemical which is readily soluble in hot water and forms a reactive type lubricant expressly formulated for use over coatings produced with Granodraw chemicals. Effective, dependable performance in cold heading or general drawing and forming operations. Immersion or flowcoat application between 165° to 175°F.

Granolube 21

Similar to Granolube 15 but contains borax and operates between 145°-165°F.

zinc phosphate coating chemicals for cold forming

Granodraw 2

Liquid, single package immersion zinc phosphate developing 100-1200 mgs./sq. ft. of coating for cold forming or drawing operations. Requires no iron titration and is recommended where bath control is minimal. Operates between 150° to 160°F.

Granodraw 30

Liquid, immersion zinc phosphate used to produce 600-1000 mgs./sq. ft. of coating on steel wire in strand applications. Operates between 170° to 180°F.

Granodraw 846

Low temperature, heavy zinc phosphate recommended for steel tube drawing to reduce friction and hold lubricant. Operates from 95°-113°F providing significant heat savings.

Granodraw 10A

Liquid, immersion zinc phosphate used to produce a heavy adherent coating on carbon or alloyed steel prior to drawing, cold heading, or cold extruding. Operates between 160° to 180°F and has nitrite regenerative ability. Recommended for high carbon steel.

Granodraw 601

Low temperature, heavy zinc phosphate recommended for steel wire drawing to reduce friction and hold lubricant. Operates from 104°-122°F to provide significant heat savings.

Granodraw 11A

Similar to Granodraw 10A, has excellent nitrite regenerative ability and is recommended for low to medium carbon steels.

Granodraw 743

Low temperature, heavy zinc phosphate recommended for steel cold impact extruding to reduce friction and hold lubricant. Operates from 104°-140°F providing significant heat savings.