



Laserguard® II

Laserguard II is a chrome free liquid product that is added to a water rinse to prevent tarnishing, staining, green salt formation, pit corrosion, finger marking and spotting-out of copper surfaces.

Laserguard II is used in conjunction with the laser pickling system in copper and brass milling application.

Laserguard II is ideally suited for application in the final water rinse (still) following the copper plating or pickling process because it will preserve the fresh appearance for weeks, even under high humidity storage conditions.

Laserguard II solutions may be used to protect copper, brass or their alloys.

The barrier film produced by the Laserguard II solution is completely invisible and has many times the corrosion resistance of bare copper. It will withstand 200 hours exposure to tropical humidity conditions without discoloration, whereas bare copper will start to corrode after one hour.

Note: Laserguard II *is not recommended* for protecting copper surfaces against outdoor exposure. The Laserguard II should only be used on work that is stored indoors.

Features & Benefits

Highly concentrated	Low storage footprint
Versatile	Effective on all copper-based alloys
Suppresses fingerprints	Less rejects
Low surface tension	Less drag-out reduces dry time

Operating Conditions

Concentration	0.1% – 1.0%
Temperature	Ambient – 140°F (60°C)
Immersion time	5 – 45 sec
Equipment	<u>Tanks</u> : stainless steel, fiberglass, Polyethylene,



	<p>Polypropylene, or rubber lined steel tanks.</p> <p>Plain steel tanks will tend to rust and consequently interfere with the function of the Laserguard II.</p> <p><u>Heating coils:</u> stainless steel or copper or copper-plated steam coils.</p> <p><u>Ventilation:</u> Recommended for heated solutions.</p>
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Operation of Laserguard II

The work should be immersed for a minimum of 30 seconds or sprayed in a room temperature solution of Laserguard II and then dried. Operating the Laserguard II solution at 140°F will reduce the immersion time to an average of 5 to 10 seconds and facilitate drying of the work.

Note: A water rinse after the Laserguard II solution will reduce the degree of protection obtained.

A protective film will not form on unclean surfaces (water-break surface), therefore, the work entering the Laserguard II solution should be wet and water-break free.

Control procedure

The simplest control is to observe the work coming out of the Laserguard II solution. Failure of the solution to "break" cleanly from the metal surface will indicate that the concentration of Laserguard II is low. An addition of the 1/2 percent by volume of Laserguard II should be made at this point.

Waste Disposal

Laserguard II consists of organic chemicals and may contain metals processed through the operating solution. Consult local agencies regarding waste effluent regulations.

Caution

Laserguard II contains organic materials. **DO NOT** get in eyes, on skin, or on clothing. Always wear goggles and rubber gloves when handling solution. Use with adequate ventilation.



Keep container tightly closed in a cool area and protect container from physical damage.

Avoid prolonged or repeated contact with skin. Skin contact may defat skin or cause skin irritation.

In case of contact, immediately flush skin or eyes with plenty of cool water for 15 minutes; for eyes, get immediate medical attention. Remove contaminated clothing and wash before re-use.

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