



Metal Finishing Systems

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TRU TEMP® MKP/RPL Low Temperature Black Oxide

(Patented)

Operating Instructions

PRODUCT DESCRIPTION

The TRU TEMP® Low Temperature Black Oxide Process operates at 200-205° F and forms a durable black oxide finish on all iron and non-stainless steel surfaces. The TRU TEMP MKP-RPL Bath System utilizes two separate products for optimum economy, as follows:

The *TRU TEMP MKP Make-Up Solution* is a bath-strength liquid, used undiluted, to charge the process tank. It contains all the active components necessary for high quality black oxide finishing, including accelerators, rectifiers and penetrants. Once the bath reaches 200-205° F operating temperature, it is ready for blackening.

As parts are processed, the bath concentration will gradually diminish and will require replenishment with *TRU TEMP RPL Replenisher Concentrate* to maintain proper concentration and solution balance. The RPL is a concentrated product with a different chemical balance in order to maintain proper chemical balance.

OPERATING CONDITIONS

Bath Make-Up

TRU TEMP MKP Make-Up Solution, used without dilution. Operate at 200-205° F

Bath Replenisher

TRU TEMP RPL Replenisher Concentrate

Equipment Construction

Tank: Mild or stainless steel with 2" insulation

Heating element: 304 stainless steel

Use 200 watts per gallon of bath.

Racks, baskets, barrels: Mild steel or Polypro

Avoid stainless steel racks, baskets.

Stainless barrels are OK, with 1-2 rpm rotation

Desirable. Use a stainless steel pump or impeller

Desirable (fumes have no chemical content)

DI or RO Purified Water is preferred

Keep all forms of copper, brass, zinc &

aluminum out of the bath.

Bath Circulation

Ventilation

Refill of Evaporative Losses

CAUTION

BLACKENING PROCEDURES

1. **CLEAN** the parts in PRESTO KLEEN® HP alkaline cleaner; 150 °F; 8 minutes.
2. **RINSE** in clean, overflowing tap water tank; 30 seconds.
3. **APPLY PRIMER COAT** in OXYPRIME® solution; Room Temp; 2-10 minutes.
4. **RINSE** in clean, overflowing tap water tank; 30 seconds.
5. **BLACKEN** in TRU TEMP bath at 200-205° F; 15 minutes.
6. **RINSE** in clean, overflowing tap water tank; 30 seconds.
7. **SEAL** with a rust preventive topcoat appropriate to the end use of the article:
Use DRI TOUCH® AMBER IRP2 water-displacing sealant for dry-to-touch finish;
Or use SHEATH® WS12 water-soluble oil at 15% by volume; 130° F, for oily finish.

BATH MAINTENANCE

As the TRU TEMP bath operates, its concentration will gradually diminish. In addition, there will be a significant loss of water to evaporation. Both these components must be replaced in order to keep the bath operating normally. Normal maintenance calls for daily additions of clean water (DI or RO is preferred) with stirring, to restore normal operating levels. Then, the bath can be titrated for total alkalinity to determine the strength of the solution, or tested with the GO/NOGO Test Kit. All replenishment is carried out with TRU TEMP RPL Replenisher.

Normal tank life is about 6-9 months, depending on maintenance & work loading.

CAUTION: Keep all forms of copper, brass, zinc and aluminum out of the bath.

PACKAGING AND STORAGE

Supplied in 55 gallon plastic, non-returnable drums. Store indoors in closed containers.

Before Using This Product – Please Read, Understand and Follow all the Precautions shown on the Product Label and on the Material Safety Data Sheet.

The Material Safety Data Sheet is found on our website: www.birchwoodcasey.com

Use Appropriate Hazard Labels on any Container used to Store or Apply this product.

NOTE: The information contained herein is provided in good faith and is believed to be correct. However, Birchwood Laboratories, Inc. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, Birchwood Laboratories, Inc. will not be responsible for damages of any kind resulting from the use or of reliance upon such information.

TRU TEMP® MKP Makeup Solution

(Product Number: 611158)

TRU TEMP® RPL Replenisher Concentrate

(Product Number: 611258)

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