



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 forms a durable black oxide finish on all non-stainless steels, cast iron and powdered metals. The MKP-RPL Bath System offers optimum efficiency and economy by using two separate products, 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 restore its original strength. This is a concentrated product with a different chemical balance in order to provide the proper components needed for optimum performance and long tank life.

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

Heater: 304 stainless immersion heater

200 watts per gallon of bath.

Racks, baskets, barrels: Mild or stainless steel

Bath Circulation

Desirable. Use a steel pump or impeller

Ventilation

Desirable (fumes have no chemical content)

CAUTION

Keep all forms of copper, zinc, aluminum out of the bath. (They contaminate the bath.)

BLACKENING PROCEDURES

1. **CLEAN** and degrease the parts in PRESTO KLEEN® HP heavy-duty alkaline cleaner mixed at 8 oz/gallon; 150-180 °F; 5-8 minute soak time.
2. **RINSE** in clean, overflowing tap water tank; 15 seconds.
3. **APPLY PRIMER COAT** using OXYPRIME® POWDER Surface Conditioner mixed at 1-2 lb/gallon; Room Temperature; 5-8 minute immersion.
4. **RINSE** in clean, overflowing tap water tank; 15 seconds.
5. **BLACKEN** in TRU TEMP bath at 200-205° F; 10-15 minutes.
6. **RINSE** in clean, overflowing tap water tank; 15 seconds.
7. **SEAL** in 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 concentrate 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 addition of clean tap water, with stirring, to restore normal operating levels. Then, the bath can be tested to determine the strength of the solution with the GO/NOGO Test Kit. Keep copper, brass, zinc and aluminum out of the tank. They will contaminate the TRU TEMP 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.

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TRU TEMP® MKP/RPL (Product Numbers: MKP: 611158. RPL: 611258)

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