



Metal Finishing Systems

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OXYPRIME® LIQUID Surface Conditioner

Operating Instructions

PRODUCT DESCRIPTION

OXYPRIME® LIQUID Surface Conditioner is a mildly acidic solution used to apply a primer coat on iron and steel surfaces in preparation for blackening by TRU TEMP® black oxide. Supplied as a liquid concentrate, OXYPRIME is mixed with water to form an immersion solution. The product works by carrying out a chemical reaction with the surface of the metal, forming a frosty, gray deposit that acts as a reactive base for the secondary blackening reaction to follow. OXYPRIME surface conditioner operates as a semi-permanent bath and can be controlled by a color-change test kit.

OPERATING CONDITIONS

Initial Bath Make-up	10% by volume in tap water; room temp operation.
Immersion Times	Mild steel, cast/ductile iron: 1-2 minutes. Tool steels: 2-4 minutes. High Speed steels: 5-8 minutes.
Equipment Construction	Tank: Polypropylene or acid-proof. Racks, baskets: Polypropylene or acid-proof.
Ventilation	Not Required. No fumes.
Filtration/Recirculation	Desirable on larger tanks. Use a plastic recirculating Pump or air sparger circulation.

PROCESS SEQUENCE

OXYPRIME surface conditioner is used as part of a multi-step blackening process, as follows:

1. CLEAN the metal parts by soaking in PRESTO KLEEN® HP alkaline cleaner, mixed at 8 oz/gallon; 150° F; 5-8 minutes.
2. RINSE thoroughly in clean water; 30 seconds.

(Optional) DESCALE, as needed, in 20% Hydrochloric acid, room temp; 2-10 minutes. Then, RINSE thoroughly for 30 seconds in clean water.

3. APPLY PRIMER COAT by immersing parts in OXYPRIME solution at room temperature for desired time or until parts have taken on a thin, frosty gray appearance.
4. RINSE in clean water; 30 seconds.
5. BLACKEN in TRU TEMP® XL black oxide bath, 200-205° F; 10-15 minutes.
6. RINSE in clean water; 30 seconds.
7. SEAL in DRI TOUCH® AMBER IRP2 rust preventive or other appropriate topcoat sealant.

BATH MAINTENANCE

The OXYPRIME solution can be maintained by testing with the CCK-TT Color Change Kit available from BIRCHWOOD CASEY, to determine bath strength and proper additions. The bath slowly absorbs iron from the parts being processed and gradually takes on a yellow/orange color. At this point, the OXYPRIME bath should be discarded and replaced with fresh solution. The spent bath is normally sewerable with pH adjustment only.

PACKAGING & STORAGE

Five and 55-gallon plastic, non-returnable containers. Store 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 can be found on our website: www.birchwoodcasey.com

Always Apply Appropriate Labels to 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 as of the date hereof. 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 of or reliance upon such information.

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