

HEATBATH®

C O R P O R A T I O N



INNOVATIONS IN
BLACK OXIDE TECHNOLOGY

ISO 9001 Certified

HEATBATH®

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Specialized Blackening Products Plus Experienced Technical Service

Heatbath Corporation offers a comprehensive line of blackening products to achieve the blackest finish with superior abrasion and corrosion resistant properties. Our creative and experienced research chemists have developed the fastest and most efficient blackening systems which offer outstanding performance characteristics and optimum appearance. Heatbath's Pentrate® products are known throughout the industry for their simple operation, extended service life and unsurpassed blackening power. Successful companies that know the importance of reliable, superior quality products supported by innovative technical service, count on Heatbath Corporation.

We have produced this brochure to introduce you to our company and the capabilities that make us unique in the field of black oxide finishing. We invite you to contact one of our Technical Service Specialists to discuss your specific process and coating requirements.



BLACK OXIDE FOR FERROUS METALS

STEEL, STAINLESS STEEL,
CAST AND MALLEABLE IRON

Pentrate® Ultra

Used for the deepest black finish on steel. Produces a uniform black oxide finish with no rub off or dimensional change. Low drag out reduces operating costs. Contains rectifiers to remove non-ferrous contamination. This premium black oxide product has incorporated inhibitors for the control of colloidal iron build up in the operating bath. Operates at 285-290°F. Pentrate Ultra meets or exceeds all government specifications, including MIL-DTL-13924D for Class 1 black oxide coatings. Pentrate Ultra is available in both powdered and liquid form.

PX®-5

A black oxide with a unique balance of alkali and oxidizers for use on stainless steel, cast and malleable iron. Operates at 250-260°F. Meets the requirements of MIL-DTL-13924D for Class 4 black oxide coatings. PX-5 is available in both powdered and liquid form.

Kwik-Blak® LT

This single component liquid concentrate is a room temperature black oxide process that saves energy and time. Produces a deep black finish when used at 10-15% by volume on ferrous metals (except stainless steel). Bath can be filtered for extended service life.

Pentrate® Touch Up

Used to repair scratches or imperfections on previously blackened steel parts. Bluing action is instantaneous when applied to a properly prepared surface.

BLACK OXIDE FOR NON-FERROUS METALS

COPPER, COPPER ALLOYS, ZINC PLATE,
ZINC DIE CASTINGS AND SILVER SOLDER

Durablack Liquid

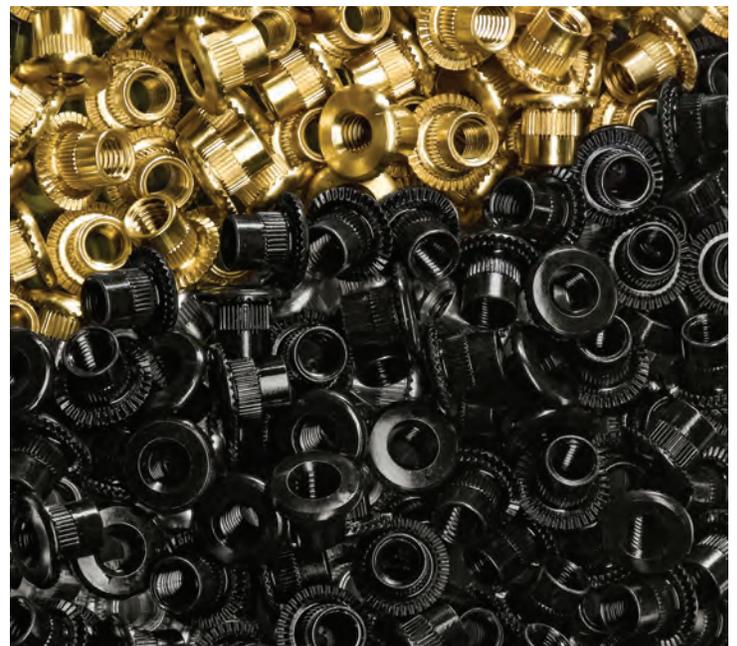
A highly concentrated alkaline product used to produce a black conversion coating on copper. Operates at 215-220°F. Alloys of copper can be blackened when **Durablack Pre-Dip L** is used.

Zinol® 1436

A lustrous black conversion coating that provides an attractive appearance on zinc plated parts and zinc die castings. Bath is charged at 10-16 oz./gallon and operates at 140-160°F. Zinol 1436 provides excellent corrosion resistance when used in conjunction with a protective seal.

Pentrate® EE-2

Used to blend silver soldered or brazed joints with the blackened steel surface. Operates at 180-190°F with immersion times as short as 2 minutes.



ADDITIONAL PRODUCTS FOR POWDERED METAL AND ASSEMBLIES

No Bleed II

Used to displace entrapped or absorbed blackening salts from deep crevices, joints of steel assemblies and from powdered metal components after blackening. Carbonate bloom or bleed out can be eliminated. This hot oil is most effective when operated at or above 250°F.

Rinse Kleen 1020

A buffered, mildly acidic material used for neutralization of residual black oxide salts. This rinse additive does not contain chromic acid. Improved wetting characteristics allow for penetration into crevices and blind holes of the black oxidized parts. Effective at very low concentrations, just 1-3 oz./gallon.

RUST PREVENTATIVE TOPCOATS

Protect your investment with Heatbath's rust preventative products. Choose from a variety of water displacing oils, emulsifiable oils or wax emulsions to meet your corrosion protection requirements and enhance the appearance of your black oxide finish. Request a copy of our brochure for detailed product descriptions and salt spray test results for Heatbath's lines of Pen Dip®, Lab Oil and Durawax products.





**"It doesn't
get any
BLACKER
than this"**



Heatbath[®]
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Manufacturers of Metal Finishing and Heat Treating Products since 1923.