

TRU TEMP® 2ND GEN

MID-TEMPERATURE BLACK OXIDE



THE BEST JUST GOT BETTER.

TRU TEMP® 2ND GEN process expands on our original, patented **TRU TEMP® XL** black oxide with more features and expanded finishing capabilities.



BIRCHWOOD®
TECHNOLOGIES

TRU TEMP® 2ND GEN

MID-TEMPERATURE BLACK OXIDE

SAME SAFE TEMP. DARKER & CLEANER BLACK.

You asked us for a darker and cleaner finish. **TRU TEMP® 2ND GEN** delivers on that and more. The new patent pending **TRU TEMP® 2ND GEN** mid-temperature black oxide is a re-engineered and improved finish based on the original and widely used **TRU TEMP® XL** introduced in 2001.

Operating at the same safe temperature range of 200° – 210°F, **TRU TEMP® 2ND GEN** achieves a superior dark black finish that will not rub off when handled. The clean-to-the-touch magnetite coating is non-dimensional (1 micron thick) and ideal for machined components, non-machined components, powdered metals, MIM, tooling, gears, sucker rods and more.



PROCESS HARD-TO-BLACKEN STEEL IN A SINGLE PASS



STEEL BEFORE & AFTER BLACKENING

The patent pending **TRU TEMP® 2ND GEN** easily blackens an expanded range of high-alloy/high-strength steels and iron in a single pass. Robust features of **TRU TEMP® 2ND GEN** include protecting critical surfaces in storage, shipment and startup while resisting galling and aiding with break-in lubricity. The process also avoids problems seen with traditional Hot Oxide such as: coatings appearing red or salt leaching problems commonly seen in blind holes or recesses.

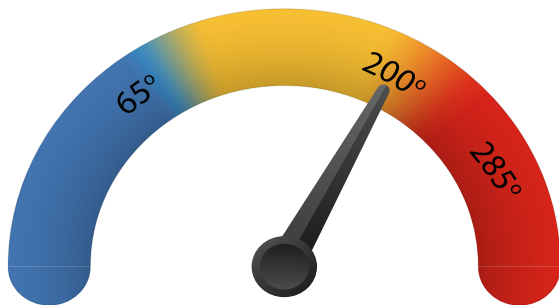
ENHANCES ISO ACCOUNTABILITY.

TRU TEMP® 2ND GEN in-house process makes it easy and fast to supply customers just-in-time requirements. By using an in-house finishing system, a company can achieve cycle time reductions, inventory reductions and overall process improvements. **ISO** accountability is enhanced and **TRU TEMP® 2ND GEN** meets compliance initiatives including Mil-DTL-13924E Class 1 for steel.

Plus, the process can be designed around several factors including: mix of alloys, hardness and reactivity, condition of the surface prior to blackening, parts handling employed, and the final finish requirement in terms of appearance, gloss and corrosion resistance.



MACHINED STEEL BEFORE
& AFTER BLACKENING



200° – 210°F TEMP

Operates at an optimum 200° – 210°F temperature range making it easy to use in-house and operator friendly. The chemistry is easy to manage and contains **no EPA** regulated metals, so rinse waters are generally sewerable by neutralizing the pH with a typical discharge range of pH 7-11. Additionally, reaching this range takes only 20% of the acid and is much less dangerous to do yourself than other processes. Since **TRU TEMP® 2ND GEN** process requires no effluent treatment, the initial capital investment is only about half of other blackening systems.

FINISHES PARTS FAST

The most common finishing line configuration completes the blackening in 30-35 minutes in a seven-step process which includes: clean, rinse, activation, rinse, blackening, rinse, and sealing. Alternate process designs can be accommodated for most workflows.



Let us test finish your parts. Call 952-937-7931

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With nearly **75 years** of premier manufacturing expertise, Birchwood Technologies is the industry leader in metal finishing processes and systems. Our talented group of chemists and technical support professionals in-field and in-house, enable us to build on our technology breakthroughs – from Tru Temp® 2nd Gen (shown in this brochure) to Presto Black® SSBI, Dri-Touch®, Presto Black® Oxide, and so many others.



**Contact Birchwood Technologies for more information
and FREE Sample testing of your components.**

www.birchwoodtechnologies.com PH 952-937.7931