



## Product Bulletin

Better Chemistry. **Better Business.**

### Ultrex Burnishing CPD D 10

**Product Code: 2103069**

**Revised Date: 06/26/2006**

### Ultrex Burnishing CPD D 10 Mass Finishing Product

**Ultrex Burnishing CPD D 10** is a mildly alkaline, powdered burnishing compound. It can be used with most standard mass finishing equipment. **Ultrex Burnishing CPD D 10** is suited to processing a variety of parts, such as solid brass, plated brass, copper alloys, and steel.

#### **SPECIAL FEATURES**

- For Use with Vibratory and Barrel Mass Finishing Equipment
- Contains A Unique Blend of Conditioning Agents
- Provides Excellent Lubricity for Superior Burnishing
- Detergency for Light to Heavy Duty Oil & Grease Removal

#### **RECOMMENDED APPLICATION VIBRATORY BOWLS & TUBS HORIZONTAL & OBLIQUE TUMBLING BARRELS**

	<b>Range</b>	<b>Optimum</b>
Concentration	0.5 – 2 oz/gal (3.75 – 15g/l)	1.25 oz/gal (9.4 g/l)
Temperature	75-120 deg F (24-49 deg C)	98 deg F (37 deg C)
Media (optional)	Ceramic, plastic, or c.h. steel	As required
Ratio of media to parts	10:1 to 20:1	As required
Time	30 minutes – 2 hours	As required

Note: Each specific mass finishing application has it's own unique operating parameters and conditions. The optimum cycle can be developed by evaluating the effects of: media (if required), concentration of **Ultrex Burnishing CPD D 10**, time of process, and mechanical action of the mass finishing equipment being used.

#### **EQUIPMENT**

Any mass finishing equipment, suitable to the process, may be used. Regular maintenance procedure should include lubricating as per manufacturer's recommendations and periodic confirmation of correct rotational or vibratory speed.



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#### **RECOMMENDED PROCESS CYCLE HORIZONTAL & OBLIQUE BARRELS**

1. Optional Soak Clean: To remove heavy oil and grease buildup. A soak cleaner such as Ultrex AS 181 W or Ultrex Soak Cleaner HC may be used. Parts can be precleaned in a separate heated soak cleaning tank. Or, tumble cleaned in the barrel itself, combining sufficient warm water and the cleaner. **Ultrex Burnishing Compound D-10** itself provides excellent detergency. Based on testing, parts may also be precleaned in **Ultrex Burnishing Compound D-10**, or simultaneously cleaned and burnished.
2. \*Cold Water Rinse
3. Transfer parts to cleaned mass finishing barrel. Add media if required.
4. Add sufficient water to slightly below the surface of parts and optional media. The optimum amount of water and media are determined by trial evaluation.
5. Add the required amount of **Ultrex Burnishing Compound D-10**.
6. If an oblique barrel is used, start the process run.
7. If a horizontal barrel is used, place the sealing gasket over the door, affix the lid, and tighten it. Rotate 1 revolution. Check for leaks and adjust seal as required.
8. Process for the required time.
9. Oblique barrel: When the run is completed, tilt the barrel to drain the load. Briefly rinse the parts.
10. Horizontal barrel: When the run is completed stop the barrel. Slowly and carefully open the ventilation valve, to bleed any pressure that may have built up during the process run. Only after this has been done can the barrel be safely opened. Replace the gasket with a screen. Replace the lid, and rotate to drain the solution. Briefly rinse the parts.
11. The processed parts can be rinsed and dried, then transferred to the next appropriate finishing step.

\* It may be necessary to descale or deburr before burnishing. Your Hubbard-Hall sales representative or the Technical Center will be glad to recommend an effective processing cycle for the particular finishing requirement.



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#### RECOMMENDED PROCESS CYCLE VIBRATORY BOWL & TUB

1. Optional Soak Clean: To remove heavy oil and grease buildup. A soak cleaner such as Ultrex AS 181 W or Ultrex Soak Cleaner HC may be used. Parts should be precleaned in a separate soak cleaner tank **Ultrex Burnishing Compound D-10** itself provides excellent detergency. Based on testing, parts may also be precleaned in **Ultrex Burnishing Compound D-10**, or simultaneously cleaned and burnished.
2. \*Cold Water Rinse
3. Lubricate the media by adding water and **Ultrex Burnishing Compound D-10**. Run the vibratory bowl or tub for a short time. This procedure will also prevent the load from seizing or congealing.
4. Add parts to the previously conditioned vibratory equipment.
5. Process for required time. Add water and **Ultrex Burnishing Compound D-10** as needed during the cycle.
6. Rinse the load.
7. The processed parts can be rinsed and dried, then transferred to the next appropriate finishing step.

\* It may be necessary to deburr or descale before burnishing. Your Hubbard-Hall sales representative or the Technical Center will be glad to recommend effective processing for the particular finishing requirement.

#### PRODUCT CONSUMPTION

**Ultrex Burnishing Compound D-10** is best utilized as an addition of fresh, concentrated product for each process run of parts. This insures optimum active material to work on the metal surface. For extended process cycles, replenishment additions of **Ultrex Burnishing Compound D-10** will maintain the desired levels of components for optimum burnishing effect. As indicated in the Recommended Application section, trial evaluations are suggested before the optimum concentration of **Ultrex Burnishing Compound D-10** is established.



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### PROCESS SUGGESTIONS

**Ultrex Burnishing Compound D-10** is buffered and provides reserve lubricity action, for applications where longer burnishing times are required. The active components keep brass and copper alloys bright, imparting an effective tarnish inhibiting film.

**Ultrex Burnishing Compound D-10** contains a high level of detergents to emulsify stamping, forming, and rust proofing oils. If the parts are heavily loaded with oil, it may be necessary to dump the solution to remove the emulsified oils, rinse, re-charge with **Ultrex Burnishing Compound D-10**, to obtain the desired burnishing effect. Alternatively, parts can be precleaned as described in pages 2-3.

In horizontal and oblique barrels, the slide zone is very critical to obtain the most efficient action on parts. Therefore, ratio of parts to media and water level, will influence the effect of **Ultrex Burnishing Compound D-10**. By comparison, the mechanical action in horizontal barrels tends to shorten process time versus the oblique barrel. For either equipment, the rotation speed can be adjusted to provide the best tumbling suited to the desired cycle time.

Round and tub vibratory bowls are readily compatible with **Ultrex Burnishing Compound D-10**. The media and parts are in constant motion, typically providing shorter cycle times versus barrel equipment.

The size and shape of media is critical toward action on the metal surface, and to prevent lodging. New media should be conditioned for the specified break in to remove sharp edges. Older media that becomes glazed and rounded, may require replacement.

Low concentrations of burnishing compound contribute to scratching of the surface, resulting in a mottled or hazy finish after plating. High concentrations of burnishing compound result in low luster and higher than desired RMS values.

### PHYSICAL CHARACTERISTICS

<b>Appearance</b>	<i>Off white, yellow flake/powder mixture</i>
<b>Odor/ Dusty</b>	<i>None/ Slight</i>
<b>Foaming tendency</b>	<i>Moderate in cold water at suggested use</i>
<b>Solubility</b>	<i>Complete at operating conditions</i>



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#### PRODUCT PROFILE

<b>Caustic</b>	<b>No</b>
<b>Phosphate</b>	<b>Yes</b>
<b>Silicate</b>	<b>No</b>
<b>Nitrite</b>	<b>No</b>
<b>Soap</b>	<b>Yes</b>
<b>Chelates &amp; Complexors</b>	<b>No</b>

#### HAZARD CLASSIFICATION

<b>DOT Classification</b>	<b>Not D.O.T. Regulated</b>
<b>DOT Shipping Name</b>	<b>N/A</b>
<b>UN Number</b>	<b>N/A</b>

#### WASTE TREATMENT & DISPOSAL

Ultrex Burnishing Compound D-10 and it's working solutions are alkaline. They may be neutralized with acid to meet local POTW or municipal effluent discharge requirements. Sludges and oils should be separated out before discharge. Spent Ultrex Burnishing Compound D-10 solutions may contain dissolved metals from the mass finishing process. Therefore, additional treatment of the solution may be required to meet discharge requirements.

#### SAFETY INFORMATION

Please read and understand the Ultrex Burnishing Compound D-10 Material Safety Data Sheet before handling and using this product.

#### WARRANTY

THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.