



Die Brite 54

Product Code: 2380005
Revised Date: 03/17/2009

Die-Brite 54

DESCRIPTION

Die-Brite 54 is an acidic liquid, chromate free product for chemical polishing, brightening and also conditioning the surface of zinc die castings for subsequent operations such as electroplating, blacking and chromating.

Note: **Die-Brite 54** will not brighten or polish the Zamak 5 die cast alloy. In fact because of the alloying metals present in Zamak 5 the **Die-Brite 54** will blacken this alloy.

Die-Brite 54 is a single package product formulated for operations, which process zinc die castings. **Die-Brite 54** solution functions in the following manner: the first 10 to 30 seconds of immersion cleans and conditions the zinc die cast surface (removal of oxides embedded particles, residues, etc.). In the final 30 to 75 seconds, the **Die-Brite 54** solution begins to chemically polish and brighten the casting.

FEATURES AND BENEFITS

- Reduces rejects due to blistering of the copper plate, especially in the unbuffered and cold shut areas of the zinc die casting.
- Improves overall adhesion of the copper plate on the zinc die casts surface.
- May replace the conventional alkaline electrocleaner and acid immersion in a plating line -- saves 2 to 4 steps (including water rinses).
- Restores the brightness and polish of zinc die castings which have been stored over an extended period of time between operations.
- **Die-Brite 54** is a simple bath to use.

OPERATING CONDITIONS

Concentration: use as received - full strength
Temperature: 70 to 100f (21 to 37c)
Immersion time: 10 to 75 seconds
Agitation: recommended - movement of work or solution will decrease time to achieve polish.



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Equipment: tanks should be constructed of polyethylene, polypropylene or rigid pvc. Racks may be coated or conventional plastisol. Rack tips stainless steel tips or phosphor bronze tips. However, periodic examination is recommended to determine the long term tolerance.

Cooling/heating coils: teflon exchangers (heat and cool)

Ventilation: suggested - or use in well ventilated area. when the immersion time ranges from 10 to 20 seconds and the work load is approximately 1 to 2 ft²/rack, cooling coils will not be required.

A SUGGESTED CYCLE

1. Soak clean (if required) cleaners cb-1, 187-b, or s-982
2. Cold water rinse
3. 10 to 75 sec. Immersion in **Die-Brite 54** at 70-100f (21-37c)
4. Cold water rinse
5. Cold water rinse
6. Copper strike

Die castings must be free of oils (mold release compounds), quench medium and buffing compounds, before immersing in **Die-Brite 54** solution.

CONTROL

Die-Brite 54 should be used until it becomes too slow - then discard.

CAUTION

Die-Brite 54 is a strong acidic solution also containing oxidizing acids. Avoid skin, eye and oral contact. Wear protective clothing, gloves and goggles when handling the product. Flush exposed areas immediately with clean, cold water. Contact a doctor immediately in case of injury.

Die-Brite 54 should be used in a well ventilated area. The reaction of **Die-Brite 54** with the zinc die castings will result in generation of gas.

WASTE DISPOSAL

Die-Brite 54 solution should be neutralized to a ph between 6 to 8 with either soda ash or caustic soda. Since **Die-Brite 54** is a strong acid the method which should be followed to achieve this is:



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1. Dilute **Die-Brite 54** solution with 2 parts water.
2. Slowly add the caustic or soda ash - stirring the solution slowly.

Wear protective clothing, goggles and gloves when neutralizing **Die-Brite 54** solution.

Once the solution has been neutralized, pump the liquid portion to a settling tank. In order to be completely informed on the latest regulations for your area, please contact the local authorities.

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.